

Grass Roots

Craft and self-sufficiency

For down to earth people

Hay

AUST \$3.75

Australian and
New Zealand Edition

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•
Growing Cotton

•
Owner Building

•
Poultry Rations

•
Propagating Plants

•
Cement Posts

•
Solar
Hot Water



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John van Tinteren

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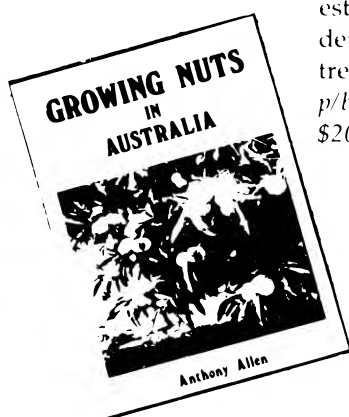
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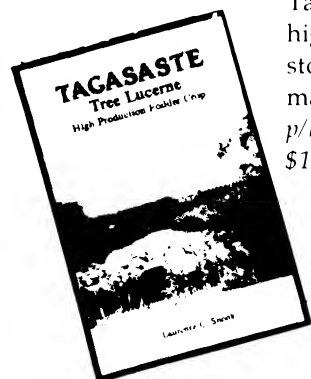
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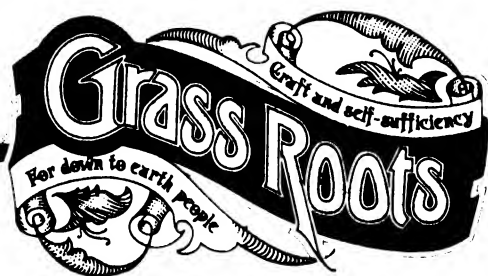
Arthur Cannon

This book contains a how-to-do-it guide, with details of making the tackle, training bullocks and making your own cart. This unique piece of Australian history makes for fascinating reading.

p/b 136 pp

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NIGHT OWL PUBLISHERS: PO Box 764 SHEPPARTON 3630



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Front Cover: The various species of domestic poultry may be humble critters but they are certainly popular, bringing pleasure as well as eggs and meat to their owners. Few readers do not have at least a few hens or ducks in their backyard. We've received many enquiries for homemade rations and in this issue we're delighted to bring you suggestions for making your own poultry food. There is also an article on how to determine if a hen is laying, and another on plucking ducks.

Back Cover: The attractive door to owner-builder Anna Morton's house. The building process was a delicate balance between Anna's own energy and ability and that of her helpful friends. She now has her own home in which there is a special sense of warmth and belonging, and which overflows with the memories of her generous friends. See page 29 for her story.

Distributed to newsagents by Gordon and Gotch.

Feedback Link-Up Feedback

To All Who Contribute to GR,

I commend you on your constant effort to enhance our emotional intelligence with articles that teach us rather than tell us how to accomplish a task, always leaving room for our creativity, improvement and improvisation. Not too many mags have the courage to inform their readers of inaccurate information previously printed, received from well meaning individuals.

It is heartwarming to note that our trials and tribulations, lonely people's need to communicate with like minded people through Contacts, quests of knowledge and a united love of our land and peace have been acknowledged. A simple request for the whereabouts of a kapok tree did not go unnoticed. The postie did stop many times. Mat, please write again, your address is in that all-elusive 'safe place' — wherever that is! We are hoping to find a large house soon in Qld, somewhere friendly, peaceful, not too isolated that we can share with the children, guitars and gardens. Any suggestions about where to look? Lastly does anyone know where my old mate Geoff Medhurst is? Peace and prosperity to all.

**Amanda Castle
3 Murray St
BRIBIE ISLAND 4507.**

Dear Megg and Company,

The CONTACTS COLUMN is very good for people, and I find it very interesting, but after my own effort I found out a lot of people are really lonely. We are all humans who need contact with each other, and I must say this, we are not all looking for an 'easy wicket'. Mostly we are single because of trauma or incompatibility, are very careful before recommitting ourselves and truly are needing companionship. It is lonely sitting on one's own every evening with no one to converse with. Some of the ads really are a bit much though, aren't they — where would a middle aged feller find a sexy coloured girl with blue eyes, who hopefully can blow a mean flute?

I no longer am a draughtsperson, but now run an activities programme at an old persons hostel in Frankston. I really enjoy this, as working with the frail and confused elderly can give one such a good feeling, especially when they start to love and trust you in return. I have gained so many loving friends, (one forgets the touchy ones!).

**Gillian Strode
PO Box 900
FRANKSTON 3199.**



Edited by Megg Miller and Kath Harper.

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Grass Roots is produced for those who wish to regain control over their lifestyle by exploring the alternatives to modern mass consumption. Whether you've just started out or you're an old hand, why not share your experience and knowledge with other readers of Grass Roots. All contributions of articles and photos are welcome.

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Dear Fellow Readers,

This is our first letter to *Grass Roots* after 5 years of reading this fantastic magazine. Early in 1988 we moved to our Utopia, 6¼ acres at beautiful Kooralbyn Valley (about 25 km south of Beaudesert). It is a friendly little community of freehold, small acreage owners which is centred around a scenic tourist resort (plenty of work here if you want it). You may have heard of it as they advertise Australia wide. We came across it quite by accident. We had a nice home on ¼ acre in outer suburban Brisbane and were trying to live our alternative lifestyle there. Anyway, one day we got fed up with our snobby neighbours (Your rainforest is shading our pool. Your bees are drinking in our pool. We don't like the look of your yard, beehives, vegie garden, compost heap, can't you get rid of it all so we can entertain in style?) so we sold up. After we paid the bank back we had enough left for a modest house with a big shed in the country. We are lucky in that Neal is a commercial honey producer so we already have a living from the land. We've planted an orchard of 20 varieties ranging from citrus and stonefruits through to tropicals like custard apples, mangoes and macadamias. We have 6 bantam hens (2 Chinese Silkies, 2 Pekins and 2 Langshans) which we keep in an A frame chook house. We shift it up and down in rows between the trees in the orchard so they are on fresh grass each day. They fertilise the trees and keep the grass down very well. We are also planting our gully with rainforest trees native to this area, which was cleared for farming years ago.

Enough of us: here are a few GARDENING AND BEEKEEPING HINTS for others. Did you know that the size of your vine fruits (e.g. rockmelons, cucumbers, pumpkins), the percentage of fruit set and the seed content is directly related to the number of bees which visit each flower?

To anyone who hasn't tried lucerne hay as mulch yet: do yourself a favour and go and get a bale. Our garden has thrived where we have used it and is virtually maintenance free from weeding and watering.

To hobbyist beekeepers: I recently read an article about someone's 'organic' beehive which was free of chemicals. All beehives are organic. An organic beehive which gets diseased and is not treated is a dead beehive. The common diseases will not go away by themselves. European foulbrood disease is a notifiable disease and must be treated with oxytetracycline hydrochloride (available on prescription only from DPI or a vet) and American foulbrood (a virus) is treated by total destruction of the hive and contents (including bees) by burning, supervised by the DPI. We feel it would be very irresponsible, for the sake of keeping a beehive organic, to allow these transferable diseases to spread to other people's apiaries and increase the threat of perhaps total destruction of Australia's honey producing industry. For those who don't know it, a healthy hive (maybe yours) on finding a 'dead out' from disease will rob the honey from it and contract the disease themselves, so the problem is highest in small acreage or suburban areas where there are a lot of uninformed hobbyist beekeepers. More information, including colour brochures with actual photos of what to look for, is available from the DPI in your state and they are very helpful professionals who will not condemn you if you have a problem but actually help you to get rid of it. Everything you need to know about bees can be found in *The ABC and XYZ of Bee Culture* by A I Root and Co, available from Pender Beekeeping Supplies, Rutherford 2320 or Apiarists Supply Co, 30 Kooruhman Court, Logan Village 4280.

An apiary is a peaceful place in which to work or just to sit and enjoy watching the bees go to and fro, so keep yours strong and healthy and a bountiful crop to you all.

**Karen & Neal Venables
Lot 180 Wellington-Bundock Dr
KOORALBYN VALLEY 4287.**

Dear Grass Roots Readers,

I have 32 beautiful acres here at Kipper Creek and I am trying to selectively clear some of the originally cleared land. My problem concerns REGROWTH in some shrubs and trees; where it is possible to remove the root system I do so, but in most cases the tree or sapling is just too big, so I cut it off at the ground level and from the stump the regrowth springs up. Could readers please advise if there are ways other than using potent toxic chemicals to stop the regrowth?

I also have some PROBLEM WEEDS namely lantana and *Sida retusa* in the paddocks and catsear on the lawn. What to do?

Thank you for a wonderful magazine. Peace to all.

**Erin Forrest
C/- PO
FERNVALE 4306.**

Feedback Link-Up Feedback

Dear GR Readers,

I am writing in the hope of getting some info on the effects of IMMUNISATION. I had intended to not immunise my second child but am now having some doubts. I got a rather rude shock when over Xmas he had to be hospitalised due to bronchiolitis and it reminded me of children's vulnerability. I don't want to immunise him so I'm hoping someone can send me either good info on why it's not necessary and on alternatives or point me in the right direction so I can get some firm facts to go on.

Also does anyone have experience with how to treat ASTHMA with herbs or foods especially preventative treatment?

Thanks to the GR staff for providing this forum.

**Antoinette Shanahan
RSD GOONGERAH 3888.**

Dear Grass Roots Readers,

In answer to your question on how to use ALOE VERA: I have a large aloe vera plant in my garden and a friend suggested to me to rub the gel from inside the leaves onto the backs of my hands to remove freckles and age spots. I was sceptical but tried it, really in a week they were disappearing. It takes a lot to convince me, but I am truly convinced that this plant is quite remarkable. There are other uses for this plant too. Maybe some other readers will write in with them.

**A M Freeman
10 Yugara St
MALVA BAY 2536.**

Dear Grass Roots,

I am trying to find out how to make yoghurt with soy milk. I notice that the soy milk I make with the flour isn't very 'milky' looking. Is it nice and white if made from the beans?

**Ann Stratton
Pituri St
BOULIA 4829.**

Dear Grass Roots,

Does anybody have some information on the life cycle and habits of our friendly little insect, the LADYBIRD? I have found a few scraps of information but nothing substantial. Has anybody had success with breeding them? I would be very grateful for any replies.

To Pamela Davey of Shepparton: I enjoyed your article on 'Silkworms' in GR 69 and would love to show my young daughter these fascinating creatures. Where do you send for the eggs? And also is the mulberry tree a particular variety?

Thanks for such a friendly and informative magazine Megg, David and staff. It is something I keep coming back to.

**Merryn Williams
RSD1
Little Yarra Rd
YARRA JUNCTION 3797.**

Dear Megg,

My reply to the query of C F van der Lelie, (Feedback Link-Up, GR 70) about problems with PLANTS NOT SETTING SEED is as follows. It must be disappointing not to get any seeds straight away on carrots, beetroot or silverbeet but, like all the flowering plants, these will also flower and bear seeds eventually. These crops are biennial (they live for two years) and the stems carrying flowers will only develop during the second growing season, after the plant has been exposed to winter conditions. During the second year, once the weather becomes warmer, long straight stems will grow from among the leaves, which often form a bunch just above ground. These stems will carry the flowers, which eventually develop seeds. I cannot explain why your carrots and beetroot have not produced seeds the second year — it may have been because of hot seasonal conditions, as most of these plants are natives in countries with moderate climate.

**John Kenez
5 Rolls Court
GLEN WAVERLEY 3150.**

Dear Grass Roots,

Thank you for a great magazine. I look forward to every edition. Is there anyone interested in joining a VEGETARIAN CLUB which would include recipe swaps, guide to healthy eats around towns, nutritional information and healthy hints and lectures on alternative lifestyle and healthy living and eating? Also I would like to correspond with anyone from all parts of the world.

**A Charles
PO Box 83
BELGRAVE 3160.**

Dear Megg,

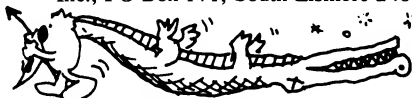
I would like to let readers know that there can be a good income made from growing culinary and medicinal herbs and also the foraging for indigenous and naturalised herbs.

Two years ago following a talk by foremost herbalist Denis Stewart in Lismore, titled 'Herbs, a Cash Crop', an association was formed to promote herb growing and encourage and support those who wanted to do so. The association has grown steadily and members live not only in the northern part of NSW but in many states. The Northern Rivers Herb Growers and Marketers Association Inc. has a very informative monthly newsletter, meetings on the first Wednesday of each month in Lismore, guest speakers and field days. Membership fee is only \$12 per year. Members are given personal advice and assistance on all aspects of HERB GROWING AND COLLECTING — from sources of certified seeds and stock to where to sell the dried or fresh herbs and prices to be expected for them. Although to be viable, most herb growing needs a commercial setup, acreage and machinery, a good income can be made from an acre or less, of, for example, culinary herbs sold fresh on a regular basis to local restaurants.

If you do not have any land or do not wish to cultivate and are prepared to put some effort into it, foraging could be for you. In Europe foraging is an occupation which has been handed down through the generations. This is the way many of the herbs used in Australia today are collected. Some of the herbs to be found growing wild in Australia and for which there is demand are St Mary's thistle, gotu kola, horehound, stinging nettle, poke-weed, plantain, elderberry, yellow dock, bittersweet, chickweed, fumitory, mullein and dandelion. Correct identification, time of collection, method of drying, and method of storing are crucial to the final product and must be understood as only top quality dried herbs are bought by manufacturers of herbal products. Organic methods of growing herbs are promoted by the Association so that any herb being sold through the NRHGMA can be given this warranty of quality.

Demand for Australian grown herbs is huge and is bound to become even greater as demand for herbal products increases. We have the advantage of a relatively unpolluted atmosphere here in Australia — most of the countries which have traditionally supplied the world with herbs now have problems such as acid rain and the resultant contamination from Chernobyl. What an opportunity for Australians!

For information on the Association write to the secretary, NRHGMA Inc., PO Box 171, South Lismore 2480.



**Liisa Hobler
9 Warana Ave
Bray Park
MURWILLUMBAH 2484.**

Dear Grass Roots,

Lyn (ex WA) and I (ex NZ) have been living in central Queensland for 4 years and because of our farming background and need for self-sufficiency, we are wanting to SETTLE much FURTHER SOUTH in a cooler climate to raise our three children aged 6, 3 and 2 in an acceptable environment. Being closer to clear running springs, stream or river and natural bush and vegetation and being within approx 1-2 hours drive from a large city centre is important to us. We would like readers to help us by letting us know of places you are aware of, as we are not familiar with the southern states and don't know which parts are chemical free, have good rainfall and fresh clean water. We are planning on travelling around looking at prospective properties in mid 1989 while holidaying for 2 weeks. If there is anyone who can suggest an area to look at, please do so, we would greatly appreciate it.

We have been enjoying this informative mag for 4 years now. Keep up the good work.

**Bruce and Lyn
PO Box 6277
NORTH ROCKHAMPTON 4701.**

Dear Megg and Staff,

I know you all work very hard and probably sometimes wish you could hand it to someone else for a while, but please don't stop. For me personally a new world has opened up, and all because of *Grass Roots*. My love and gratitude to all the friends I've made through my letter in Feedback. I'm on the move and have taken my first step to finding me. LORNA — please write again with an address.

Love to you all.

**Bronwyn Humphreys
9 Gundull Pl
GIRALANG 2617.**

Feedback Link-Up Feedback

Dear Grass Roots,

I am a new subscriber and find it a most interesting magazine. I wish to let readers know of a magazine I am subscribing to known as *ACRES Australia*. It's a JOURNAL OF SUSTAINABLE AGRICULTURE and I strongly recommend it to those who hunger for information. I am a small farmer and find that *ACRES* makes a lot of sense to me in my own case. It can be obtained by contacting Acres Australia Pty Ltd, PO Box 314, Hindmarsh 5007. Ph (08) 458 555.

Would any readers outside of Australia and New Zealand living and farming overseas who are interested in organic type farming methods care to exchange letters with me on these systems? I am now making the effort to convert to organic and wish to leave the 'other' system far behind. If you do write, please give me some time to reply as I may be flooded and may have to use my 'newsletter' method on one side and a proper personal reply on the other side of the sheet of paper. Wishing everyone success, thank you.

Rex Niemz
Box 120
FREELING 5372.

Dear Grass Roots,

Could anyone tell me how to set up a WIND GENERATOR, 12 volt run by a wind turbine? Would a turbine built from one 44 gal drum be good enough to run a generator or alternator from a car?

Anyone needing advice on digging wells in sandy loam can write to me and I'll tell them the do's and don'ts as I have dug two. Both have had their problems and I learnt the hard way. One was by shovel, the other by excavator. Also I have 20 acres of sandy loam with lots of tall trees and lantana. I have been mulching with lawn cuttings — will this take anything out of the top soil and how do I put it back?

Also who can tell me what solar powered pump will work well from a well 7.3 m (24 ft) deep, pushing up 7.3 m (24 ft)? Most of the companies say their pumps are the best but I would like to hear from people who have already used a solar pump. Here in the sub tropics we have plenty of sun.

Robert McGlashan
PO Box 92
HERMIT PARK 4812.

Hullo Everyone,

Saw my first ladybird in the garden the other day and I was so delighted! I feel I must be doing something right (at last) as I seem to be having a lot of success with growing vegies now. I'm learning and gaining more confidence every day for which I owe a lot to *Grass Roots*. 1988 was our year of the forty four gallon drums! Amongst other things I planted fruit trees in several of them, looking good, will let you know how successful it was later on.

Have noticed that the amount of CORRESPONDENCE and articles FROM SA is growing, particularly from the Adelaide suburbs and environs which is good, as I have known for a long time that there are a lot of us here who are grassrooters at heart. Maybe like me they are a little shy at going public about being a little bit 'different' regarding their ideas on gardening and life in general. That's why we all read *Grass Roots*, because we know there are so many others who feel the same way and we can take comfort in that.

I hope that 1989 will be a happy year for you all and that you will be successful in whatever you want to achieve.

Flo Drage
4 Bandiana Cres
ELIZABETH NORTH 5113.

Dear GR Readers,

Can anyone tell me of a safe bio-degradable WASHING PRODUCT I can use FOR NAPPIES and clothes that leaves them soft so that I don't have to use fabric softeners, or is there any other simple method of keeping nappies soft?

Lucy Smiechura
107 Sunset Strip
MANYANA 2539.

Dear Megg and Everyone,

Please can anyone give me information on GROWING OLIVES? How many trees are required for a commercially viable crop? How many trees to an acre? Pests? Problems? Many thanks in anticipation of many replies! Love and laughter.

Anne-Marie Mead
RMB 627 Gundaroo Road
via BUNGENDORE 2621.

Dear GRs,

We are two new GRs who are planning to find ourselves a piece of Australia. During this time, we are learning as much as possible before the move. If anyone has any information on how to SMOKE/CURE HAM/BACON in a home built smokehouse and how to MAKE MEAD wine we would appreciate your advice, or if anyone would like to write just to give away some good advice. All letters will be answered. Keep up the good work!

George and Jo-Anne Belotti
12 Rowley Terrace
WOODVILLE 5011.

Following a reader's request in GR 68, mead recipes have appeared in the Feedback pages of both GR 70 and GR 71.

Dear Megg,

I have produced five black and white posters on environmental/political issues like the ozone layer which I thought might be of interest to readers. The strategy behind them is as follows. The posters have been designed for ordinary A4 office paper so they can be photocopied easily. The idea is to spread worthwhile ideas without the cost of a full-scale print job and subsequent distribution hassles. Ideally the copies would be done on copying machines owned by large companies who are part of The Problem, thereby getting the environmental delinquents to unwittingly subsidise the cost of spreading ideas that hopefully work toward getting them to change their ways. You take several copies of each poster and send them to sympathetically-disposed friends, along with a brief letter like this one explaining the scheme and urging them to do the same. It's a sort of ideologically-sound chain letter which spreads the ideas exponentially for little cost or effort. If people can use their office copiers to reproduce corny cartoons for circulation they may as well use them to spread useful ideas — especially if they work for a transnational corporation.

Anyone wanting copies (free, of course, but an SAE would be appreciated) should write to: Signs of the Times, RMB 2551, Kulnura 2250. Hang in there . . .

Bill Bottomley
RMB 2551
KULNURA 2250.

Dear GR Readers,

My husband and I were both reared on dairy farms near Goombungee. I was an only child so I learnt how to do everything. My father, no farmer but an inventor, milked cows by having a steam boiler, then proceeded to a truck engine to drive the vacuum pump and separator. I remember the 1930 depression and how lucky I am now even though we lost 10 years work down the drain.

I would like to warn people to be so careful that they insist on the analysis of their feed when bought. Do not buy PEANUT GRADINGS to mix with the feed. Aflatoxin BI is mainly in peanut hay and gradings, there is a bit in maize too. Other grains have aflatoxins, but are nowhere near as TOXIC. The SOW'S reproductive organs become sort of lumpy, we found when we had a vet do an autopsy. We kept 3 of the best sows for a year, but they never ever came on heat.

For anyone interested in FOSSICKING we have petrified palm and wood in this area. No matter how much I know, every *Grass Roots* I can learn something new. Very best wishes to you and your staff for a very interesting magazine.

C H & L M Lloyd
Taroom Rd
WANDOAN 4419.

The Merck Veterinary Manual says that aflatoxins (a type of mould or fungi) can be found in mouldy peanuts, soybean, cottonseed, rice, sorghum, corn and other cereals. Their ingestion causes lack of appetite, reduced growth, jaundice due to liver damage and death. Most susceptible are growing poultry, young swine, pregnant sows, calves and dogs.

Dear People,

I am interested in building a RAMMED EARTH HOUSE but know nothing about the difficulties involved. Any books or information I could buy or obtain I would appreciate it. Your *Grass Roots* magazine to me is magic.

Simon Fox
Lot 146 Karnup Creek Road
SERPENTINE 6205.

A couple of books you may find helpful are the 'Earth Builder's Companion', \$7.50 posted from Night Owl Publishers, and the 'Earth Garden Building Book', Nelson/Penguin, approx. \$30.00.

Feedback Link-Up Feedback

Dear People,

Since there have been some recent letters in *Grass Roots* about animal welfare, I thought you might like to hear of the formation of a new organisation in this area. The Australian Federation for the Welfare of Animals was launched in May 1987 and is representative of groups or organisations that are involved with care and use of animals. Its aims are to promote the highest standards of animal welfare and to raise community awareness of our society's dependence on animals. Member organisations must adhere to a strict code of ethics in their treatment of animals under their control, and the Federation is actively working to provide information and assistance to members and the public to encourage humane use of animals for human benefit. If you belong to a group that works with and/or derives income from animals, and you accept the legitimacy of human use of animals, you are eligible to join the AFWA. For more information, you can contact AFWA, PO Box 908, Blacktown, 2148. Individuals can be involved too, but will not have the same representation as organisations.

**George Bryant
CESSNOCK 2325.**

Hello Grass Rooters,

Hello to one and all! Thank you so much for my link to reality, and so very many helpful and indispensable handy hints on natural living. Since my first introduction to *Grass Roots*, in June 1987, I have truly been educated in so many ways, with many thanks to all you like minded people for making this possible. Was wondering could I please make an urgent plea for help, could any kind person please advise me how to TREAT MY COWS NATURALLY without toxic poisons for such problems as ticks, scours, worms, and buffalo fly blight? I only have Annie, my house cow, and two calves but unfortunately, not knowing enough of natural remedies, I have been forced to use chemicals for the above. This truly breaks my heart as I won't use any of these preparations around our house or property — particularly on us humans. I have had great success with Swedish Bitters for a middle ear infection and Royal Jelly for abundant energy. Maria Treben's book *Health Through God's Pharmacy* is truly a goldmine of wisdom, must be one of the most informative books I have ever read.

At the moment I feel really hamstrung, but I know that there must be some tried and tested natural remedies, so please can anyone help? It would be so very, very much appreciated. God bless you all and may you all continue to be happy and contented. Would also love to hear from any of Bill W's friends.



**Denise Seaton
'Serenity'
Glencoe Road
PROSTON 4613.**

Dear Megg,

I am particularly interested in home-grown methods for the FILTRATION of iron oxide out of bore water and would be grateful for any information from anyone that would help in that direction.

**V Galbraith
Wattagan Creek
Laguna
Nr CESSNOCK 2325.**

Dear Grassroots Family,

Several years ago now I wrote to you people telling of my plans to drive myself around Australia in my Ford Transit camper-van. Well years went on as I lived with my elderly mother to look after her, then when she moved into a special accommodation home I was reluctant to leave her. I enjoyed doing Mum's little bits of shopping, and taking her out in the wheelchair when weather permitted.

However last year at the age of 90 Mum passed on so here I am now in WA having left Healesville in Vic mid Oct 88. I had no problems coming over the Nullarbor on my own. Have really enjoyed myself so far and intend to go north from Perth in the winter. In the meantime I'm going to go south and check out the big trees and lovely scenery I hear is down there.

I would like to urge any WOMEN who are reluctant to GO OFF ON THEIR OWN, it's no big deal so go and enjoy yourself. I'm looking forward to meeting up with GR people on my travels so if anyone wants to write I can be contacted through my daughter's address (she forwards all mail to me). Hoping to hear from you.

**Lorna Stoddart
C/o 5 Eugenia St
MULLUMBIMBY 2482.**

Dear Grass Roots,

Re the letter about LIDS FOR AGEE PRESERVING BOTTLES (GR 71, p. 6): these are sold by Bottle Containers, 18 Lancashire St, Acacia Ridge 4110. Phone Brisbane 07-273-1844. They sell a flat metal band with rubber seal to fit on top of the Agee bottle, a 92 mm (3 3/8 in) screw on white plastic cap to fit over the band and also a 92 mm (3 3/8 in) screw on metal dome to fit over the band. As it is impossible to get the exact measurements and descriptions over the phone from the sales staff or management, you need to order carefully giving full descriptions and exact measurements. I have bought the Agee jars and various lids from them, the first order contained the wrong lids, and I telephoned them twice this morning to check for you.

**K B
BRISBANE 4000.**

Dear GR,

I am a new subscriber to *Grass Roots* and am enjoying your magazine. In answer to Maree Williamson's request for SCREW TOP LIDS for old Agee glass jars (GR 70, p. 4) we have a reject shop in Box Hill Central that is selling glass preserving jars with glass lids at a very reasonable price. They were very solid and squat looking jars, if this is any help to you.

As for myself, I am seeking a YOGHURT PLANT. I once had a Russian yoghurt plant and very foolishly threw it away as I was going on holiday. It kept growing and you had to keep disposing of it so I didn't know what else to do. I thought I'd be able to get more when I came back, but unfortunately no. It was the best yoghurt I'd ever had and as I am suffering from a very bad stretch of thrush which I can't shake off I would be very grateful to anyone who may know where I could get a yoghurt plant of similar type as this thrush is making me very sick.

**Nada Harris
11 Verona St
BOX HILL 3128.**

Dear Grass Roots Readers,

This is my first letter to *Grass Roots*, though I have been reading it for some time. I always read the Feedback first to see if there are any similar stories to ours.

We are a family of five, Chris and myself, Anne (both late 30s), David 11, Sarah 9 and baby Claire 5 months. We were born and raised in the inner suburbs of Melbourne and so far have raised our family here. For all the reasons you have heard before, we would like to leave the city to offer our kids the chance of a better life. The main thing that has always stopped us is Chris' work. He is involved in import/export so is tied to the major ports or airports. He is currently working at Melbourne Airport. It is rather hard to leave the security of a well paid job and company car to move to a new area where he may not be able to find work.

Anyway, we have decided to finally take the plunge! We were beginning to think it was too late, but the arrival of Claire put a new perspective on things. We are going to sell our Victorian house in Moonee Ponds and will have quite a bit of money behind us. We would like to settle in northern NSW around MURWILLUMBAH/TWEED VALLEY area, hopefully midyear. Any GR readers living in this area, we would love any information on places that might suit us. Our plan is to move to Murwillumbah and rent a house while we look for the spot where we would like to live. It would need to be accessible to schools and prospective employment.

A bit about ourselves, Chris is quite handy, having renovated two Victorian houses. He also started an apprenticeship in leadlight/stained glass nearly 25 years ago which he was unable to complete as the factory closed down due to lack of work. At that time, leadlighting was confined to churches! He received his training from skilled English craftsmen. I am interested in most types of craft work, particularly patchwork, candlewicking and needlework. Music also plays an important part in our lives with Chris and Daniel playing in a local brass band.

We don't expect to be self-sufficient, but would aim to have a bit of land to grow vegies and fruit trees, give the kids some room to grow and live where life moves at a slower pace. Chris is in a very stressful job and has taken medication for high blood pressure for over 10 years. Any advice on areas that should be avoided due to chemical contamination or any other environmental factors would be much appreciated.

**Anne and Chris Aulsebrook
C/- PO
ASCOT VALE 3032.**

Feedback Link-Up Feedback

Dear Grass Roots People,

Firstly, I am still alive and, better still, am in fairly good health, having controlled by 'alternative' methods the illness which plagued me for the past two years; so I am looking forward now to celebrating my 82nd birthday in May; oh, very quiet, but a kind of thanksgiving since life seemed likely to terminate a few times over the 2 years. I must thank the very kind GR people who wrote to me encouragingly and with kind good wishes, and indeed who *did* help me a great deal; when incapacitated on a bed, with the 'grim reaper' just nearby, there's nothing more wonderful than receiving kind letters from folks I knew before and also, surprisingly, from many I did not know at all. They took the trouble to write me a few words of sweet good wishes, whereas my temperature would go right down with my blood pressure, and even my temperament would improve just a little, because I am not an 'easy' invalid. I have not been able to answer everyone; firstly, physically impossible; and also my household affairs and correspondence have been somewhat disorganised over the months, despite the good intentions of Help Ladies, nurses, and a few most wonderful local ladies who helped in so many ways, one of the most important being giving my husband a rest from invalid, house, and farm care for a few hours now and then. 'Carers' do need some un-anxious time away from the whole set-up; life must go on for them, both at home and abroad.

To those who wrote last year inviting us to visit them when we decided to take a northern Qld tour — thank you. We did not make it, owing to my collapse again in May, and subsequent months of recuperation but maybe, just maybe, we might make it perhaps some of the way this year. I did get *Grass Roots* regularly, a cheerful addition to one's reading; I always felt better when reading of the really difficult problems of others; mine did not seem so bad. I had a kind letter from a NZ lady a week or so ago; she had read only one copy of *Grass Roots*, it had an article of mine in it and from this little known corner of NZ she wrote to me. We are corresponding now and I hope to see her when she comes to Australia shortly. I also met another correspondent of the same kind, only about 80 miles away from here; she is a lively 78, a great gardener and 'alternatively' knowledgeable on foods, herbs, etc, so we had a pleasant morning when I was able to drive and call on her (and fortunately, also able to help her in return with some legal problems — it's all a two-way traffic).

Must not take up any more precious space, but thanks to all, including the office staff, whom I just *must* meet soon.

Iris Quigley
'Minjilunga'
CHILLINGHAM 2484.

Dear GR Folk,

At the risk of seeming a tedious bore, I want to repeat a request made previously for BANDANNAS. The style I want is one common and popular in the 70s. They came in three basic colours — red, navy and yellow — and had the same pattern of white dots grouped in threes on a central ground inside a border, the most common being close ranks of 'dumbbell' shapes with three white lines either side. If you don't want to dispose of your own could you please keep an eagle eye out in your local op shops and send them to me? I will gladly and thankfully pay your purchase and postage costs or do any small favour in return. I have worn them since the late 1960s and find them just about the most versatile and practical item in my wardrobe; in fact I don't feel dressed without one! They can be worn in all situations from work and play to dressy and fulfill many roles from headband to hanky.

May peace be with you all.

Andrew Hardwick
'Studley Royal'
Devoncourt Rd
URALLA 2358.

Dear Readers,

Hello to all. My fiancé and I are hoping to buy 5-10 acres within the next 2 or 3 years in the Sunshine Coast hinterland, which we live near now with my parents at Eudlo. We would like to build in either MUDBRICK ORSTONE, depending on council permits and availability of materials. If there is anyone building with these materials around our area, we would love to give a hand in exchange for the experience. Also, would anyone have info on the following things: building a septic system/tank, a pedal-powered washing machine, different alternatives to electricity and building a spiral staircase? All letters will be answered. Great magazine, thank you for your help.

Narelle Parks
PO Box 14
EUDLO 4554.

Dear GR Workers and Readers,

A few letters in GR 71 had queries to which I may be able to offer some assistance. I thought it better to write to the mag instead of personally so others can find the answers too.

To Jo Jirgens and Linda Seaborne re FRUIT FLY: I do not know of any absolutely 'foolproof' method of protecting a crop from this widespread pest, but to minimise the problem cut a plastic soft drink bottle at the shoulder, invert this part with the neck of the bottle inside the main part of the bottle and seal with insulation tape. Poke two holes in base of the bottle for a wire hanger. Mix some Vegemite and water and place in bottle and hang in tree. The principle is that the protein in the Vegemite attracts the male fruit fly, therefore stopping the breeding cycle.

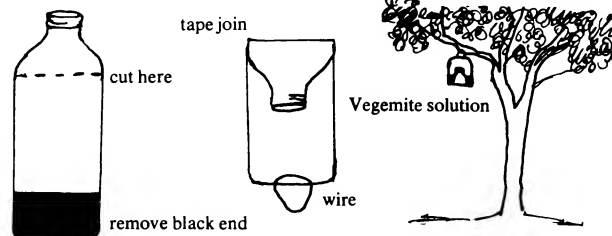
Graham Vowles mentioned placing bags or cloth around fruit trees to stop WHITE ANTS. This would only encourage them, as they dislike light and this would give them good hiding places. Better to keep mulch away from the bases of trees and shrubs, especially pine bark. This should be done in any case to protect trees from collar rot. Also the reason for white ant infestation in disused houses is the lack of vibration associated with normal family movements, which the termites also dislike.

D A Walker should enquire at a local TAFE College about courses in CONCRETING AND BRICKLAYING. They are usually run on a regular basis for very moderate fees. Sally Roddom, I trust you now realise that your eggs are 100 percent OK. If you wait for eggs from a broody hen, they will very likely be in an advanced state of incubation (half-formed chickens) by the time you find them.

Now for a query myself. There has been much talk of HORMONE RESIDUES in animal and poultry manures. Can someone authoritative please tell us all if these hormones can actually be absorbed by plant matter (vegetables etc.) or do they only affect animal tissue?

Finally, a big thank you to all the workers at *Grass Roots* for putting together a great magazine and to readers — may you all find your own particular haven, be it in suburbia or in the 'sticks'.

Barbara Chalker
PO Box 49
BLACKBUTT 4306.



Aloha!

My friends and I are saving up to visit and possibly LIVE IN AUSTRALIA. I read your listing in *The New Age Community Guidebook* and thought you might have some names and addresses of folks who are into visitors/explorers. We're into sprouts, home birthing, dolphins, world peace and the like and networking with others into the New Age. So far we've heard most about Cairns in Queensland so any information or contacts up there would be great.

Thanks a trillion and keep the light shining.

Gordon S
PO Box 1772
Bonita Springs
FL 33959 USA.

Dear GR Readers,

Thank you for our great magazine. We have just bought 8½ acres here, near Narrogin WA, and are starting our home of stone and rammed earth with our own power supply and own water, so as you can guess we get a lot of good info from *Grass Roots*.

I have heard that you can make an organic soap from vegie oils. Can anyone help me with RECIPES FOR SOAP or any other product such as laundry soap, shampoos and beauty aids? All help appreciated and all letters answered. Hi to all WA readers especially to readers near Narrogin whom we'd love to hear from.

Glenn and Adrienne Hawser
C/- PO
CUBALLING 6311.

Feedback Link-Up Feedback

Dear GR Readers,

I am a single 32 yo parent with an 8 year old daughter who is so sick of traipsing around, we finally decided to stop for a while, the rents being so high that it would take my whole pension and leave us nothing, so we are renting a caravan and have it situated on my sister and brother-in-law's property. This is all very fine for now and I was wondering if there is anyone who can help me with ideas or info on YURT BUILDINGS. I found a place that builds them but they are so expensive even for a small frame that it must be cheaper to build from scratch. Has anyone got some plans that I could use, borrow or copy?

Here are some replies to queries in the last issue. To Jo Jirgens of Nowra: I shall write to you personally as well as in the mag. I have spent all day going through each mag looking into your FRUIT FLY PROBLEM: the lady who wrote this Vegemite smelling deterrent is Lady Jane Orchard, PO Box 282, Inverell 2360. The formula is protein hydrolysate amd Maldison or Lebaycid — quantities 300 ml (½ pt) of water to 20 ml (⅓ fl oz) protein, 10 ml (⅓ fl oz) Maldison per tree, also good for tomatoes. Do not spray the trees but splash it on fence posts, dead tree stumps and pieces of wood and leave it near the trees. For larger quantities use 18 lt (4 gal) water, 320 ml (½ pt) protein, 160 ml (¼ pt) — does 24 trees — or hang jars of this in trees, replace every 6 days.

To K Cogan of Cairns: I also have a fascination for SILK WORMS. I have info on these little worms and shall send you a letter and info and eggs but must get to a photocopier first. Has anyone got any ideas on making silk paper from their cocoons? May this letter find everyone in good health.

Debbie Clough
PO Box 21

KURRAJONG HEIGHTS 2758.

Hi Earthlings,

Does anyone know where I can get some SILK WORM EGGS? I have recently discovered how to spin silk and am finding it a truly luxurious fibre. It far surpasses anything I have previously spun. I am also wondering where to get COTTON SEED and FLAX SEED. Can you get small amounts of it?

Hello to Carol and Gerry if you are reading this. Also hello to Rob Smith of Hamilton and thank you for sending me the plans for the Tandoori oven. I haven't made one yet but probably will eventually. Share water, never thirst!

Caroline Tully
7 Turner St
EAST MALVERN 3145.

Dear Megg,

For those interested in obtaining SILK WORM EGGS, the person to write to is Mrs Pam Jowett, 540 Roper St, Albury 2640, enclosing payment of \$3.00. Eggs will then be sent by Mrs Jowett and these can be stored in the refrigerator until spring. You must have a supply of white mulberry leaves, and the eggs will hatch out in early spring when the mulberry trees are newly sprouting. Instructions are also supplied. Best regards to all.

Pamela Davey
18 Fordyce St
SHEPPARTON 3630.

Dear Grass Roots Readers,

First of all, let me express my thanks to you for a wonderful magazine which brings the beliefs and resources of so many people together. I first heard of *Grass Roots* when I was hitchhiking through Victoria about 15 months ago and since then I have become a keen subscriber as I find it comforting in this world which has become so 'plastic' and 'consumer-oriented' to find so many down to earth souls who share what is basically my vision of the way our world must turn if we are to survive the Earth-threatening challenges of the next 50 years.

Recently I purchased a block of land at Mallacoota on the far NE coast of Victoria. I have fallen in love with the area, for its beautiful, relatively unspoiled coastline and lakes and secondly for its surrounding state and national parks which are magnificent. I yearn to live with and enjoy such a magnificent resource. I was lucky enough to have two sheds included with my block and I'm now busily collecting pre-loved wood, nails and tin to start creating my ideal environment. I intend to settle in this area once I have freed myself of the dread land and house payments. I have already gleaned many very useful, cheap and ecologically-sound ideas from this mag and I will use it as a primary resource when I come to build.

The reason I'm writing is threefold. In addition to wishing to thank

you for the magazine, I would also like to know if anyone has successfully used a WATERING SYSTEM to water plants when one is not there for extended periods? I have town water at the block but I'm only going to be there once every month and a half (approximately). I have many ideas spinning around in my head and I believe a drip gravity-fed solution is my best bet but I'd love some advice. The soil, being sandy, has good drainage aided by a good slope from the front to the rear of the block.

Finally, while I'm satisfied my life is moving in the direction my beliefs dictate I feel I would like to share my dream with others who feel as I do. Obviously, in this letter I have only given a small snippet of what I believe but I'd love to hear from anyone who feels they may be travelling a similar path. Thanks for the opportunity to talk and keep up the good work.

Steve Bush
C/- The Roses
11 Lorne St
GOULBURN 2580.

Hi Feedback Readers,

First the easy one, GR 71 p. 80, about frogs in the dunny up in Darwin at Cathy and Peter's place: my suggestion is that any one of the blue flush loo cleaners which you hang in the cistern, if necessarily two to start with, should clear out any frogs.

Now the heavy one, GR 71 p. 76, on TOBACCO: Laurel and anyone else trying to quit, there is no gentle way, you're dealing with a narcotic more addictive than heroin. There was a letter of mine published in GR 63 p. 89 on quitting and a lady up in Qld wrote and thanked me for it. If I can help one person quit it certainly makes me feel happier, so here goes again. Tobacco is the danger in your life, real danger like the edge of a precipice or red hot metal. Our reaction to danger is one of the few acts performed without thought, it's instantaneous, self preservation is very high, and simply put that is what tobacco is to your life, a danger. You don't have to reason danger, it is danger period. It's an insight, the escape out of the fog, a narcotic free life. You're in danger, so walk away from it and others who wish to play dangerously, stay clear of them. One of the joys of this magazine is the absence of any tobacco ads, as I'm sure most people are aware of the vast spending power of these companies. Just as a footnote, the spokesperson one usually hears from these people is a doctor someone or other, who has a doctorate in communications not medicine!

Roger Croft
PO Box 272
MILTON 2538.



Dear Readers,

This is my first letter. I was recently introduced to *Grass Roots* by a friend.

In reply to Mark and Penny's request (GR 71, p. 10) for an ALTERNATIVE TO HEARTWORM TABLETS for dogs: use about half a clove of garlic finely chopped, camouflaged in something the dog really likes to eat e.g. when I had a dog I used to fold it in a piece of bread and jam. This is also good for tapeworm. Give about twice a week.

Evelyn Viney
C/- Gateway Caravan Park
BUNDABERG 4670.

Hello to All,

I'm a potter and belong to a co-op that has our own little shop. I'm doing my day on roster and it's quiet because it's pouring down in buckets outside, so I've been reading the latest *Grass Roots*. I guess I've been buying it since it first became available however long ago. I used to dream and wish along with so many others. I've made wonderful friends through the years through the magazine and have learned much and hopefully helped a little along the way. The reason for this letter is to ask if anyone can remember a place, I think in South Australia, that used to advertise in *Grass Roots*. It was called the STITCHING HOUSE BOOTERY. Does this business still exist? I badly want to buy a pair of natural oiled leather boots, plain with a rubber crepe or leather sole. Living in Qld it's so hard to buy boots at all but what is available are fashion shoes with high heels — not for this little moonduck. If anyone could shed any light on this subject I'd be most grateful.

Stef Rogerson
Lot 16 Rokeby Rd
RUIN HEADS 4655.

Feedback Link-Up Feedback

Dear GR Readers,

I am writing in reply to Donna McGregor (GR 68, p. 11) re TREATMENT FOR ASTHMA. In defence of Ventolin, I am dependent on it, though certainly not addicted to it. It is an essential drug for most chronic asthma sufferers. Anyone who has witnessed the instant relief Ventolin gives to a person who is having great difficulty breathing will surely agree with me. However there are many things that will alleviate the condition.

It is essential firstly to ban all cigarette smoke from the house. Along with this, ban all animals from entering the house. Reduce contact with animals, particularly cats, hairy dogs and horses. It would be a good idea to ensure that your sons' bedroom floors are covered in lino or floorboards with possibly a few scatter rugs which are cleaned regularly. Pile carpets and grass matting attract dust. Don't give your children feather pillows or heavy wool blankets. Woolen clothes especially with high polo necks can cause wheezing. There is a new product available from chemists called 'Allersearch', which apparently reduces the presence of dust mites. This and smoke are major irritants for asthmatics.

As for diet, there are a few foods to avoid. The worst offender seems to be cows' milk and to a lesser degree, hard cheeses (soya bean milk is fairly well received by most children). In some people, wheat products including bread and refined products such as cake etc. can offend. The preservative 220 found in wine, red food colouring — watch cordials and frankfurts for this — is bad news. Sodium nitrate found in some processed meat can also irritate. You would have to experiment with foods, eliminating one at a time, and watching for any change of condition.

It would be hard to restrict frenzied activity in small children, but this can aggravate asthma. Swimming is an excellent exercise, as are walking and bike riding. Sports activities involving running can trigger wheezing. Sometimes too, emotions can affect the sufferer, though this would be hard to control in children so young. I often get an asthma attack after yelling at my kids — we all suffer! At certain times of the year, particularly spring when all the trees and flowers blossom, my attacks are particularly bad. Dusk and night time are worse too. But don't despair, you learn to live with the condition. Who knows. Your sons may outgrow their asthma. I hope so. The Community Health Centre (local hospital) or the local newspaper will probably have the contact number for an Asthma Support Group in your area.

Donna, you didn't mention — are your sons on Ventolin syrup — this has flavouring and sugar added which could damage their teeth. Perhaps they could switch to the Ventolin inhaler. I have been assured by doctors that it doesn't affect your body long term. Ventolin's main objective is to open the bronchial tubes which in asthmatics are very sensitive to numerous things and as a defence mechanism close up, thus causing the wheezing sound and the shortage of oxygen to the lungs. Ventolin can cause a 'hyped-up' feeling, particularly if inhaled on an empty stomach or if inhaled too frequently. However I wouldn't reject this drug. If asthmatics don't have access to it, they have sleepless nights, an aching chest from all that heaving and they become extremely uncomfortable.

Well this is my experience. I hope I've been of some help.

**Carmel Muddle
KEMPSEY 2440.**

Dear GR People Everywhere,

Firstly, what a great magazine. Can't wait for each new edition (wish it was monthly).

I have been reading *Grass Roots* for some years now and find this urge to get back to a more natural lifestyle growing stronger and stronger. Living in the city with its easy security has made it difficult to get away, although I have tried a few times over the years, but with each attempt I have at least learnt more about solving/avoiding some of the many unexpected and previously unthought of problems that can and do arise with the changing of lifestyle.

One of the biggest problems of city living I find is meeting like minded people. Feedback is the only medium I have found which helps address this situation and has been an enormous help to me, having corresponded and met with a number of friendly people over the years, some just a few letters, others I keep regular contact with. It's a truly wonderful feeling knowing that there are people with similar ideas and aspirations.

Anyway the purpose of my writing: I would like to form a small group, about 10-12 people, who are interested in doing a little travelling and when a suitable place is found, setting up a COMMUNAL LIVING STYLE with the ultimate goal of becoming as self sufficient as possible. What I am looking for are people who are fed up with the rat race and

pressures of city living, not afraid of hardships, but willing to see them through (I believe that with help and support from people united in common goals anything is possible) and with a need to get back to nature with a good fellowship between human beings and a loving and caring for each other and our surroundings. Money is not a qualification, only a willingness to contribute one's best to see this venture succeed and a need for the inner satisfaction only gained through this lifestyle.

When this little group is formed, then we can work out plans and strategies for its success as we will be all equal partners sharing in the rewards of our achievements. All replies will be gratefully received and answered. Best wishes for a great magazine.

**P Neall
PO Box 75
MORTDALE 2223.**

Dear GR Readers,

I'd like to reply to a few letters in previous issues.

To Margaret Morters (GR 71, p. 76): the succulent ALL PURPOSE HERB you described I know as 'Mother of Herbs' or '5 spices'. We use it in small amounts in salads as it is very strong.

To Marion Warren (GR 71, p. 8): we made the same mistake of USING RAW SAWDUST years ago and now only use it after it has been composted with approx ¼ chicken or cow manure or seeds. As sawdust is low in nitrogen, it will rob the soil of nitrogen to help it break down, meanwhile the plants will suffer and their resistance to disease will be low. We suggest that you either remove it to a compost heap or add something high in nitrogen to it in the garden and turn and water it frequently to speed up the breaking down process.

To C F van der Lelie, (GR 70, p. 11): I've had the same problem of VEGETABLES such as beetroot, carrots, kohlrabi and rosemary NOT GOING TO SEED. I think the reason is that they need a different climate (which includes a very cold winter) to induce them to seed. I've noticed that all these vegies seed easily in Victoria but not in Queensland.

To D Day (GR 71, p. 9): here are some USES FOR FEATHERS. Earrings can be made with feathers, beads, strong cotton and wood glue, fastened on to earring hooks which can be bought at craft supply shops. Bookmarks can be made with feathers enclosed between two pieces of clear contact. An Indian headdress can be made by sewing the bottoms of feathers between two pieces of material and fastened with velcro or ties — a great hit with the kids.

Indian headdress



Thanks for a great magazine and a big hi to our friends all over Australia.

**Lindy Alba
Box 1008
MAREEBA 4880.**

Dear GR Readers,

Is there anyone who has had success in alternative methods of healing PTERYGLA — a growth which occurs over the eye toward the iris, eventually obscuring vision? We have heard this is a common problem especially in Australia, although most cases do not develop quickly and so are not so serious. However a friend of mine has spent a lot of time in the sun as he works as a builder. At the age of 22 Lawrence had pterygia removed from both eyes surgically. Following this he had two treatments of 800 rads each to both eyes to help prevent recurrence. At the time he was very opposed to the irradiation but was persuaded by the doctor to have the treatment. Lawrence feels that the irradiation had a negative effect on his health and is now upset to find the pterygia recurring only 2 years after treatment.

We are practising the preventive medicines of hat, sunglasses and minimum exposure, but would like to do more in case the problem becomes serious once again. We don't want to resort to surgery or irradiation again. I am writing hoping to catch the attention of someone who has experienced this problem and may have some suggestions. We are open to all ideas.

**Jessica Dyer
PO Box 137
ALBANY 6330.**

Feedback Link-Up Feedback

Dear Friends,

This is the first letter I have written to *Grass Roots*. I always read all the letters in Feedback and find them interesting and helpful. We have made our move to the country and have been on this property of 25 acres for 16 months. We are elderly grandparents, my husband being a retired bricklayer. We have found *Grass Roots* to be very helpful with many problems, especially in coping with the mysteries of the kero fridge.

We find GARDENING IN THIS SEMI-ARID REGION very different from that in the suburbs or where there is adequate rainfall. It is no problem here to grow vegies in the winter, no need to water at all, but the summer heat soon turns the garden into a desert. I am a Christian so I believe the promises in the Bible. I claim them for the rain and the dew to fall on the garden, also to rebuke the devourers, and for protection from accidents and bushfires. I have a short list of promises and I will send it to anyone interested. A wonderful book on how to have your prayers answered is *God's Promises Solve My Problems* by Glen Coon. Other books which are very helpful are those by the Drs Thrash — *The Oil Free Vegetarian Cookbook*, *Nutrition for Vegetarians*, *The Animal Connection* and *The Home Treatments Book* which explains all about water treatments, also the benefits of charcoal. All these are obtained from Seventh Day Adventist Bookshops in capital cities and also in Coorangbong.

By the way I am not a member of that church but I highly value their books, especially those by E G White, who was posthumously named for the National Health Federation's President's Award 1986 because of her pioneering efforts in natural health. I can be sure not to make any terrible mistakes health wise if I follow her guidelines. She advises against eating frequent meals or drinks other than water between meals and says two meals a day are better than three. A heavy evening meal causes many health problems. I used to have a weight problem which I quickly lost since following her dietary advice. She advises no free fats of any kind — contrary to popular opinion polyunsaturated fats are not healthy but quite harmful and can cause cancer and numerous other health problems.

To Allison, Peter and Sam at Torana (GR 71, p. 10): this is a semi arid region and we have had some failures but generally we have had plenty to eat from the garden without much watering, or none in some cases. We plant two or three times as much as we need to allow for failures. We don't have any insect pests, too dry for snails. Animal manure can be composted to remove poisons, or let the weeds grow which also provides cover for beneficial insects. Some things that grow without watering depending solely on rainfall and dew are all kinds of pumpkins, squash and zucchinis. Broccoli keeps on sprouting for a long time. Snake beans are OK but corn, beans and lettuce need watering. You need to plant out in early spring. I start off most things in pots but self sown plants sometimes do much better if you can protect them from the birds and insects; I spray them with kero, or clay pellets would be good. Egg tomatoes would probably be better than others. Chicory survives well, also silverbeet, mizuni, sunflowers, rock melons and probably safflower. Sunflowers do well as do peaches and grapes. We water our fruit trees, although not overmuch as it all has to be carted from a communal spring.

I would love to hear from folks interested in simple home remedies who would share them with me. I have a notebook in which I write them all down. Also it would be lovely to hear from anyone living nearby, or those who might like to join our little prayer circle. We pray over the phone and have wonderful answers. We pray for everything we need and it is marvellous how everything is supplied. We had no money except the pension and this place still needs a lot spent on it.

Keep up the great work. Peace and love to all.

Phyllis Baigent
59 Cypress Drive
Home Rule
Via MUDGE 2850.

Dear GR Readers,

I've just started reading *Grass Roots* which a friend of mine has lent me. I think it's wonderful — I can't put it down until I've read it from cover to cover. Now I have a problem which I'm hoping readers have a cure for. It's smelly feet — they are so bad I can't take my shoes off in public. I have tried buying good quality shoes instead of vinyl, but it doesn't make any difference. I would like to hear from readers for a cure. I'll try anything. Please help!

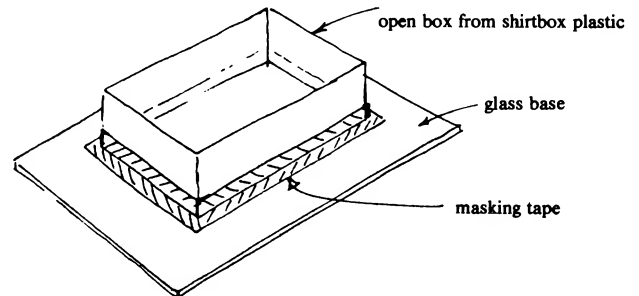
Sandra Nixon
215 Stanmore Road
STANMORE 2048.

Dear Megg,

A brief answer to Ron Treagust's query about embedding objects in resin: the material you need is casting resin which is available from all the main resin suppliers e.g. Daystar. It is relatively expensive and has a very limited shelf life. The best and cheapest mould material is the transparent front of men's shirt packing. Use glass for the base and masking/packaging tape to join plastic to glass and to reinforce corners.

Coat all the inside surfaces with a release agent (wax polish, vaseline etc). Mix up the two parts of the casting resin according to manufacturer's instructions. Pour in mould to point where object is required and allow mixture to 'go off' or set. Mix another batch, place object in desired position and fill the mould to the top. Do not pour resin over the object and do watch for any tendency of object to float to the surface. When the whole block has 'gone off', polish all the sides with wet and dry abrasive papers, working from coarse grades to the finest. Use final grades of paper with water to ensure a scratch free finish. Work the paper on a block with a motion parallel to the sides of the block.

Ray Gall
RMB 629
BERRY 2535.



Dear GR People,

Along with my partner I am hoping to buy some land in the very near future. I would appreciate hearing of people's EXPERIENCES WITH COMMUNITIES, multiple occupancies and the legality of these arrangements. My partner lost money in a community many years ago as it wasn't legally arranged, just a handshake between fellow earth lovers with one person retaining the title of the land. This was probably a rare occurrence (I hope) but we are both wary as a result.

Alternatively we'll look for cheap areas or land north of Sydney (as far north as Brisbane) within a few hours drive of the coast and within cooee(?) of other grass rooters. Any hope of finding this?

Thanks for a great magazine and hoping to hear from some of you soon.

Kamal Saraswati
23 Merton St
ROZELLE 2039.

Dear Prospective Friends,

We're a 2½ person family (an eight month old speck) who have finally had enough of Sydney (or any city) prices, materialism, exhaust fumes and ulcers. By the time you read this we will be settling down to life in Tasmania, renting a little place hopefully slightly rural, maybe 30-45 mins away from Hobart (as we can't yet afford to relinquish links with city work), with a garden for Sam to explore, and maybe a spot suitable for a vegie patch . . . Sounds blissful! One day we'll buy some land somewhere isolated, but for now, this will be enough to soothe our weary city smog souls! Apart from wanting ADVICE ON EVERYTHING from how to start a vegie/herb garden, where to get non-manufactured seeds, alternatives to fridges, a good herbalist in the area, alternative schooling for Sam's future — what we really need is some contact from like-minded folk who are down-to-earth, happy, optimistic, intelligent people who aren't afraid or too apathetic to stand up for what they believe in, like anti-logging, Greenpeace, respect for animals, beauty/household products without cruelty, who'd like to meet a couple of young idealists, mid to late 20s, who have great plans for the future, including the writing of many famous scripts and novels, more creative than money-making naturally (though both would be welcome). Any contact would be appreciated, even if it's just a friendly face! Peace and fortune to all.

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Just as we are all different so too are our approaches to problem solving. Many readers want to move to the country, to live a freer and more independent lifestyle, but are hampered by insufficient finance or restricted by job or family commitments. A large number can't see their way through their dilemma, not in the short term anyway, and for some there isn't an easy solution. Our lead story this issue looks at how a New Zealand couple solved their dilemma. Their way would not be everyone's way, but it shows how ingenuity, basic skills and a preparedness to make do can be parcelled together with very positive results.

HOME ON THE PRAIRIE

by Trish and Ian, Central Otago, NZ.

My husband and I split up about 10 years ago and I was left with a bit of money and little else except a house I couldn't afford to maintain. I had to work for a meagre \$148 a week in a tannery, where I met Ian who was my nightshift boss. We talked on many occasions about going bush and just living off what we could grow — sounds great and a bit idealistic, but it is surprising just what you can do if you try hard enough. We had 4 weeks of Christmas holidays in 1985 and decided to look around for some place that would be cheap to buy — preferably free. And as you can imagine there are not many places like that.

Having been over the old Dunstan Road (old gold coach and miners' route to Central Otago back in the 1860s) several times on horseback, I decided to take Ian there for a week. He fell in love with the lunar landscape with huge rock outcrops rising sometimes to towering heights, and a groundcover of tussocks and clover. Being between 610 and 1370 m (2-4500 ft) above sea level it is clear, clean and quiet. We enquired around to find out whose land we camped on. Here in NZ rivers and lakes must have access to them for recreational purposes and as there were already six or so huts at the west end of the plateau we thought we would like to live away from them, so we walked around and found what we thought was the ideal spot. We knew our worst weather would come from the south but we did not count on the winds which blow through here from a north-westerly direction being quite so strong. We found the property lessee — this is Crown Lease land, owned by the government but paid for with a nominal rental by the farmers down on the flat in the valleys.

It took a bit of talking but we asked if we could build a fishing hut up here, saying did he mind if we stayed for quite long periods at a time. 'No,' was the answer, 'as long as we can use the hut at times'. We went back to work, although on long weekends we came through and scouted around a bit more to make sure we had the right place. Then we gave in our notice and brought up at every opportunity bits and pieces we had collected from second hand places and demolition jobs. As far as the crow flies we are only 70 or so miles from Dunedin and with our trusty old Nissan, a 1969 SWB 4WD model, we would hitch up the horse float and use it as a trailer for all sorts of materials.

We started building mid March and spent 31 days — some not full days, just half days here and there till we knew we would have to come and stay in a tent and really get stuck in if we wished to have it finished by the beginning of winter. We bloody near got blown off the face of the earth and knew then we were in trouble as far as the winds went, but having

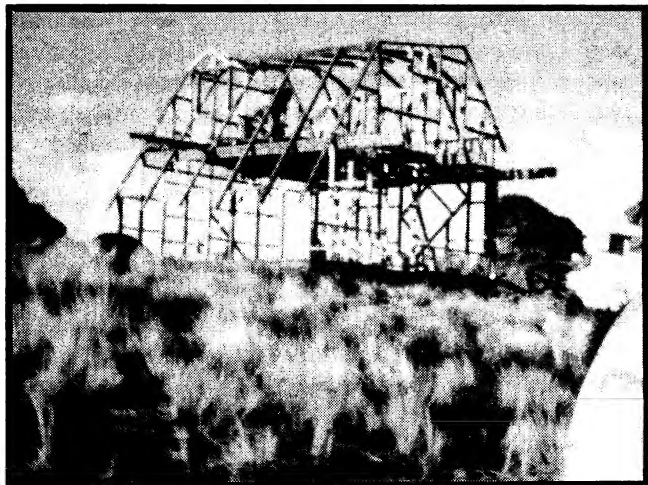


The exterior shingles close up in winter to seal out the cold but shrink to let some breeze through in summer.

started we carried on and in mid April moved in.

Our timber framed house, a sort of cut off A-frame, was built in three stages. We designed the whole house by doodling in a scrap book till we thought we had what we wanted, and then set about buying enough second hand material to build the main section, living area and sleeping area above. The reason for this was that we had limited finance and winter was coming and at 3000 feet it can be mighty cold. With few demolition dealers we had to keep an open mind as you can't always buy the right sized windows you want or get beams and such on call. Everything had to be cheap, it's quite fun seeing what bargains you can buy rather than purchasing new materials and if you tell people what you are doing they may give you bits and pieces — like the folk we bought the coal range from threw in a shower tray and some taps. We bought all the shingles for our house at a quarter of the new price from a sale at a hardware store. Until then we had no idea of what to use for exterior cladding. They have worked out well on our house as during the winter they expand and close up the gaps between them and in the summer they dry out and shrink which actually helps to cool inside the house on hot days if there is a breeze. Temperatures are up to 30°C (86°F) in the summertime.

The foundations were difficult as this whole area has rock



Short walls and steeply sloping roof minimise the effect of strong winds.

just under the surface and we had to go through the rock with a huge bar to get deep enough footings. But we finally poured them with great satisfaction after quite a struggle. We could have blasted but didn't have the money — or the expertise.

The house has a short north wall 1500 mm (5 ft) high, the south wall is 3000 mm (10 ft) high with the roof running off these walls on a fairly steep angle to an almost flat roof on top, sloping slightly for drainage. All the roof area is supported by pine logs with the bark left on. We used 300 x 12.5 mm (12 x ½ in) kauri planks for lining, nailed on top of the logs to give an exposed effect. This type of roof-wall construction appeals to us as there is no wasted space or materials. The dormer windows and double doors upstairs Ian made as we couldn't buy anything that would do the job. The living area floor space is 7.5 x 6 m (25 x 20 ft), upstairs is slightly smaller with roof angle.

We used a log left over from the roof as a main support pole for our spiral stairway. This stairway uses less space than a straight stairway would have — we considered a ladder up the wall type, but it didn't seem practical. We put the sink, small gas cooker, coal range and hot water tank along one wall, and built a pantry (walk in type) in the corner by the end of the sink and bench. After two years of ash dust everywhere and generally not very good service from the coal range we replaced it with a Kent Forester wood burner, which heats the house, the water and has a good cooking space on top of it. We think it is good value, the only snag is having to cart all the wood, the closest tree being 20 km (12 miles) away. Perhaps somebody would know if you can make a burnable brick from horse dung and maybe sawdust. I know horse dung burns but is very smoky by itself.

When building our house we tried to be a bit different, so on the south wall we put a 1 x 1 m (3 x 3 ft) window in on the diagonal with the shingles to frame it and on the same wall a greenhouse or bay window in which we can sit and look out at the view to the south. All the wall space in the living area has slowly been taken over with bookshelves which seem to overflow faster than Ian can build them.

Because second hand flashings, ridgings and roll edge barge board are hard to find in good condition we made most of ours from flat tin (another present) by bending the edge as required over a long piece of timber and hitting it rather

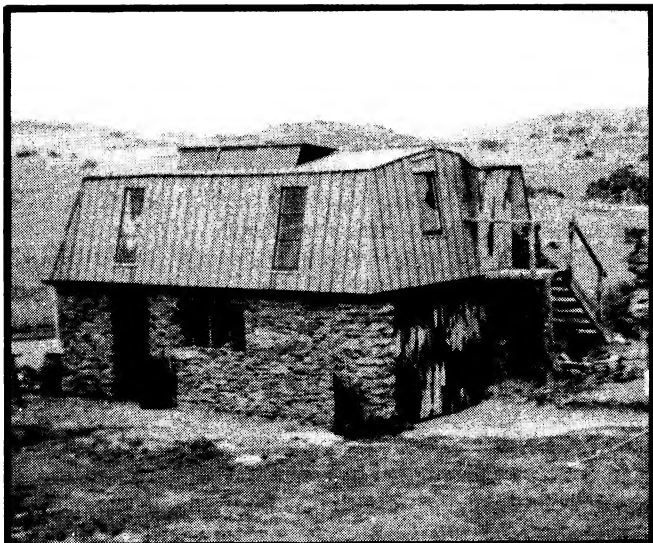
severely with a hammer. The finished products wouldn't do for someone's flash new house but they did the job for us. We had our problems while building, mainly with the weather packing up at one stage when we had 25 cm (10 in) of snow — it is rather difficult trying to find what you want with that much snow around. If we didn't have the right materials for the job we had to make do, as we couldn't hop down to the shop whenever we wanted something.

The plumbing gave us the odd headache, but eventually it came right, it's gravity fed from a tank slightly higher than the house. Water is pumped up from the dam to this tank and everything works fine in summer but it's a bit touch and go in winter as it's not possible to stop all parts of the system from freezing. Originally we used old copper pipe in the house but as each bit froze and split we replaced it with PVC. This summer we are going to put a solar shower heater on the roof.

With the main house finished it was a matter of seeing winter through and, after living in the tiny hut around the road while building, it was like a palace. During the first winter Ian lined inside walls with ivory board (a thick cardboard) which was new but cheap. In the spring-summer he built the washhouse on the back with materials collected from various places, some from the tip. One of the pure joys of doing things for ourselves was that first shower, all the plumbing frustrations seemed worthwhile.

About this time we both started jobs 50 km (30 miles) apart and things stood still for a while, with us only getting home at weekends. I had a job in a work scheme for unemployed people, rebuilding some old stone buildings and the knowledge I acquired working with stone came in handy later. Our jobs finished after 8-9 months so it was time to get back to our house on the prairie. We had spent the odd weekend at home while working, just to get away from town life, and it was always very hard to pack up and go back after such weekends. With my newly acquired skills we decided to build the bottom section of the greenhouse with stone. This we did with Ian being the gofer for a change. On top of this we framed in and put all the windows on an angle to try to get the wind to slide up them. Until we built the greenhouse the westerly winds had hammered into the front of the house and as a wind deflector the greenhouse does a good job. We grew tomatoes in there last year with quite a good crop and if we don't get a job to interfere with our time, we hope to grow all sorts of vegetables this year. Because of the sudden weather changes here it is necessary to grow most things under cover (very late frosts and such); our growing season is from late October till early March, which all going well would be a long growing season for us. The greenhouse has also made the house much warmer in the winter as the heat collects in it and we open the door into the living space to let the heat in.

Considering we had only spent a week in the area (without wind) we feel our design with the angles on roof areas was a very lucky guess, as we often get gale force winds from south, west and north west, at times threatening to wipe us off the face of the earth. It makes all the digging down into the rock for our foundation seem worthwhile as anything that isn't tied down in a gale doesn't stay for long. The only change we made to the original plan was to add a sloped verandah of rock work to take the wind up and over the house instead of hitting it fair in the middle and shaking the hell out of it. We still need to do



The barn was very cheap to build — much of the material was given to us and we made good use of stone from a local quarry:

above the verandah to the top of the roof in the same manner but the battering the house was taking has been alleviated somewhat by the verandah.

Ian reckons we would have been better to have built underground, knowing now what the weather can be like. In summer the heat can be up to 35°C (95°F) and in winter about the same below — no I tell a fib, about -20°C (-40°F) was the worst and that was in May 1988. If we dug out a pit and put concrete walls in and a roof over the top and covered it in, we would still have the view, the space, and efficient heating with minimum effort. As it is we have to cart in all our wood for the Kent Forester log burner, which we use mostly for cooking, heating water and just plain keeping warm. Every time we go into town for essentials we load up with any firewood we can find. Kero heaters are used but at \$1.10 a litre (1 ¼ pt) they are expensive and we try to be tough and wear another layer of clothing. We also have a two ring gas stove which runs off rockgas and we fill the bottle about every 2 months — cost about \$15 which isn't too bad. For lighting we use kero lamps and also have a white spirits one which we don't like, thinking one day it might blow us up.

The building of the barn was an afterthought really. We felt the horses might appreciate a stable during the worst of the winter and that perhaps the truck should also be put out of the weather. With no jobs in sight we planned our barn to use a big rock as part of the back wall and built up from it with stone from the quarry about 2 km (1 ¼ miles) away. A stockpile had been left and we went through it to get enough to build our barn. Building time was about 2 months, we took 2 weeks off to go to the NZ Royal Agricultural Show so that made a good break in the middle of it. We had been lucky enough to buy 12 lengths of 150 x 75 mm (6 x 3 in) rimu (NZ red pine) which we used as roof supports and on a trip to Dunedin we were given several large sections of tin tiles which were used for the south wall. Our method of stone work is the same as for ordinary bricks, with a stone over a gap and using either straight mud as mortar or adding a little cement into it.

I am a bad builder as I don't use a level often enough and Ian would come along behind me to straighten things up. Corner stones which need to be specially picked are not


plentiful and often to finish a piece of stone work I would use a nearly square stone, when it should have been perfectly square. Windows came from another trip to a friend and to the demolition yard, and the door which we cut to make a stable door was kauri and beautiful, another gift. The finished walls were then battened and the whole upper storey was painted with a medium grey colour, so that from front on it looks like board and batten. Ian has his workshop at one end, I have my spinning room at the other and it doubles as another spare room for visitors.

The loo came next — this is Ian's masterpiece. It is 1.5 x 1.5 m (5 x 5 ft), has a small stone rock base up to 1 m (3 ft) high then a log top and is roofed with the offcuts of Decromatic tiles from a friend's house. The stone base with green stained logs on top and a dark brown tiled roof look rather colour co-ordinated and I painted three small diamond shaped glass panels which Ian incorporated into the door. To finish it off he paved the floor with nice flat stones. Ian's brother lives in Australia and sent us a sign saying 'Last Dunny in 50 km' which Ian nailed to a specially made post.

And last but not least we have a useful hut 10 steps away to the north of the house, made by my son Robin who visits when he can. He dug the dirt out from between two rocks and it was quite spacious with room for a bed, bookcase and storage for my horses' lucerne. We roofed it from an old bridge beam and corrugated iron, another kauri door and windows allow light in from the front (west) and I have done fine stone work around the door and windows to keep the draughts out. Our latest project is the building of a fishing hut for the leaseholder of the land. It will be made of stone like the old gold miners' cottages you can still see the ruins of around this area.

Part II next issue will give more details of the lifestyle adopted by Trish and Ian to suit these harsh conditions.

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MAKING INCENSE

by Pam Marshall, Kingswood, SA.

Although incense is most commonly identified with spiritual practices, it also has other uses. Incense is a powerful room deodoriser and air freshener. In ancient times, particularly during pagan sacrificial slaughters, incense was used to mask the offensive odours of slaughtering, and the Christian church found incense helped alleviate the odour of too many parishioners (and, as was the case many years ago, all unwashed and unkempt) crammed into often small, poorly ventilated old buildings. It has also been said that churches and buildings which use incense have an uncanny absence of indoor insects, such as woodworm, white ants and cockroaches.

THE COMPONENTS

There is really no special formula for incense. A variety of aromatic gums, resins, spices, essential oils, crushed herbs and barks can be mixed together or utilised separately to produce perfumed smoke when burnt. You can purchase these ingredients, plus items such as incense burners and ready-made incense, from Indian and Asian shops, herbal and healthfood stores or, as you will see later in this article, it is quite possible to procure them yourself from the garden, kitchen and countryside. When purchasing some of these ingredients (such as sandalwood powder and essential oils) it will be necessary to acquire quite a significant quantity (compared with the small amount required), hence making it rather expensive. It is therefore a good idea to blend some of the more expensive ingredients with what you have acquired yourself, in preference to using wholly shop purchased components.

Gum benzoin is a useful fixative which prevents the aromatic ingredients in the incense from evaporating too quickly. It has an unimposing odour which will not overpower the delicate perfume of the incense. Gum benzoin is available from some chemists, herbal and Indian stores.

Sandalwood powder can be rather expensive and difficult to obtain, so it is possible to use ordinary wood flour or finely ground sawdust mixed with a few drops of sandalwood oil. It is also possible to acquire sandalwood powder (which is finely ground sandalwood sawdust) from Australian species of sandalwood. Common names for these are the Australian sandalwood, Queensland sandalwood and the plumwood. The Australian sandalwood, in particular, is a small tree or shrub common to the arid regions of South Australia, Western Australia and the Northern Territory which exudes an appealing sandalwood aroma when burnt. In fact, large amounts of this bush were exported to China last century as sandalwood. When ground into a fine sawdust this wood is well suited to incense-making. Other Australian native trees which produce a pleasant perfume when burnt are the small Australian sugar-tree, the white cypress and the budda tree (sometimes called bastard sandalwood).

By incorporating a substance (such as gum or resin) into the incense to hold the powdered ingredients together it is possible to form a pliable 'dough' which can be formed into shapes (cones, sticks, etc.). The most commonly used agent for this purpose is gum arabic which forms a paste when

mixed with water. It is available from chemists and some herbalists. Two other commonly used agents for binding together incense powder are mucilage of gum tragacanth (which is a chloroform and alcohol based substance) and compound tragacanth powder (which is a sucrose, starch and tragacanth mixture) — both of which are made up by and acquired from pharmacists for a price.

Gum arabic is a substance derived from a species of acacia tree native to Africa, Arabia and India. The Australian acacia wattle tree, common to all parts of Australia, produces a similar type of gum arabic of lesser quality (sometimes called gum acacia). The gum exudes from the tree trunks and branches when injured. The dried gum dissolved in water forms a clear sticky mucilage ideal for binding together the dry ingredients of incense. It is quite possible to procure the gum from the tree in preference to purchasing it.

Two of the most widely known resins are frankincense and myrrh, both of which are mentioned in the Bible. In ancient times these resins were valued greatly for their fragrance when used in incense. Australian sources of resin suitable for incense-making are the Australian cypress tree (produces a resin called Australian sandarac) and the common yacca (blackboy, grass tree). The yacca has a non-water soluble resin accumulated around its leaf base. Depending on the species, the resin is usually red or yellow in colour. The yacca resin was one of the most important resins to both the Aboriginal and white settlers. It is still collected and sold in small quantities on Kangaroo Island, South Australia. It not only makes good varnish and wood stain, stove and brass polish, but when used in incense gives off a very pleasant odour. The resin is extracted by either simply shaking out the resin or heating the leaves and their base (to which the leaves are attached) in a vat which causes the steam to melt the resin. It can then be scooped off the surface or allowed to run off.

Charcoal slows up the incense burning process, which gives the gum or resins time to melt and slowly disperse the aroma. Unlike wood-based incense, charcoal incense burns without much flame, but at a much higher temperature. Ground charcoal for incense-making can be purchased from shops specialising in church requisites. There are three basic types: quick-lighting (which has been chemically treated); perfumed charcoal (to overcome the unpleasant smell of burning charcoal); and natural charcoal (more difficult to light but burns well). Different types of charcoal can be mixed together when making incense (such as perfumed with natural charcoal).

It is possible to purchase charcoal from wood merchants or hardware suppliers and grind it to a coarse powder. This is a rather tedious task, but considering only a small amount of charcoal is required, it is worth the effort. The best method is to place small pieces of charcoal in a hessian, cloth or similar type of bag, then beat it with a heavy hammer until it is a coarse powder. Sieve off the larger pieces of charcoal and use the finer grains for the incense. There are other innovative ways to grind charcoal, so find one which best suits you.

Some people make their own charcoal. If you plan to use large amounts of charcoal (which probably would not be so when making incense) it is both economical and satisfying to make your own. Charcoal is simply the result of burning wood in the presence of too little oxygen, that is, when the wood is well alight the air supply is cut off. The simplest way is to dig a trench of suitable size, fill it with wood and set it alight. When it is blazing fiercely throughout the wood, cover the trench with one or more sheets of corrugated iron, then shovel on dirt to completely smother the fire and prevent air from reaching it, but leave two small openings to allow the wood gases to escape. Leave the wood for several days to cool, then open the trench and shovel out the coal. Making charcoal takes some trial and error before one develops the art of judging just the right time to smother the fire. Obviously the outside areas of wood will burn away completely to ash, but if the wood pile was entirely alight then the centre should contain some suitable coal.

THE METHOD

Simple Incense Powder

Powdered or granular incense is the simplest form of incense and the easiest to make. Two or three teaspoons of the powder can be either burnt in a special censer containing hot charcoal or thrown directly onto glowing coals — either indoors or outdoors after a barbecue or bonfire. The burning incense will then impart a pleasant aroma to the surrounding environment.

A basic incense powder consists of the following items mixed thoroughly together: 30 g (1 oz) each of sandalwood powder, gum benzoin and orris root powder, 15 g (½ oz) each of ground cardamon and cassia bark, plus a few ground cloves. Experimental variations can be added to this basic mixture if preferred: crushed local herbs, seeds, spices, a few drops of essential oil of one's choice (such as cedarwood, rose, bergamot), grated dried citrus peel, bay leaves, eucalyptus oil or leaves or resin, dried mint, lavender or crushed bark are but a few ideas.

Shaped Incense

Here are two basic recipes for making shaped incense. As mentioned in the previous recipe for incense powder, the ingredients can be varied according to personal preferences and financial resources:

- Mix together one tablespoon each of fine sawdust and spice (or ground herbs). Essential oil may be added if a more potent aroma is preferred. Add sufficient water and gum arabic powder to make a stiff paste (i.e. approximately one tablespoon water with one teaspoon gum arabic). Shape into cones and allow to dry in a well ventilated position for 3 to 4 days.

- Mix together 250 g (8 oz) each of sandalwood powder and gum benzoin powder, 10 ml (½ fl oz) perfume oil or essential oil and 15 g (½ oz) potassium nitrate. Add sufficient gum arabic and water or other binding resin or gum to form a stiff pliable paste. Mould into the required shapes and allow to dry well before using.

Incense with Charcoal

Crush together 170 g (6 oz) charcoal, 30 g (1 oz) gum benzoin, 7 g (¼ oz) each of powdered sandalwood and cassia bark. Mix in enough gum arabic and water to form the mixture into a stiff paste. Mould into cones or other shapes. Leave to dry for two or three days in a warm place.

This basic mixture can have other ingredients (as previously mentioned) added to enhance the aroma, if preferred. But remember you must have half the mixture charcoal so that the incense will burn effectively. However, too much coal (i.e. more than half the mixture) will overpower the fragrant smells of the other ingredients, so it is important to find the medium between these two stipulations in order to acquire suitable charcoal based incense.

STORAGE

Always store incense in an airtight container or have it tightly wrapped so that it will not lose its delicate aroma.

Reprinted with permission from *New Age Times* September/October 1987, a newspaper about New Age philosophy, self-sufficiency and self awareness (no longer in publication).

SNAKES ALIVE!

by Christine Taylor

'The only good snake is a dead one', you say? Not so. As a park ranger pointed out to a group of farmers recently, snakes eat mice and other rodents which, in turn, eat the farmers' grain. This ranger went so far as to suggest that a brown snake is worth \$700 a year to a farmer. A brown snake eats four or five mice a week and 200 (50 x 4) mice can easily eat \$700 worth of grain in a year. It bears thinking about doesn't it?

They say a snake is usually as scared of us as we are of it. Next time you see a snake, stamp your feet at it. The vibrations will more than likely send it scurrying the other way. Try it and tell me how it works, please.

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BIO-FEEDBACK FOR STRESS REDUCTION

by Blackmores Communications Service, Balgowlah, NSW.

A body is under stress whenever any demand, pleasant or unpleasant, internal or external, is made upon it. Each demand causes both a specific and a generalised bodily response, though often we are unaware of these.

EFFECTS OF STRESS

Many different stress agents such as heat, cold, toxins or emotionally disturbing events seem to cause the same generalised physiological and psychological changes. Many stress agents activate a primitive 'fight or flight' reflex which involves the autonomic nervous system — consisting of the sympathetic and para-sympathetic — and the adrenal gland.

The sympathetic nervous system prepares the body to fight or flee from a threat. When activated it causes a variety of bodily responses: increased heart rate, respiratory rate and blood pressure; constricted sphincters and decreased contractions and secretions in the digestive system; constricted blood vessels in the skin and so on. This system works en masse. When you affect one part, you affect the whole. Adrenalin (epinephrine), the hormone secreted by the adrenal gland, tends to intensify and prolong the effects of sympathetic activation.

While these responses were appropriate for primitive ancestors who lived under conditions that required them to fight or flee at a moment's notice, civilised society requires us to inhibit these responses most of the time. When the boss yells at us or a shop assistant is rude, our bodies react as if we were threatened and our 'fight/flight' reflex is partially or completely activated. Unfortunately society does not allow us either to run away from our boss or to attack him. Our sympathetic nervous system has prepared us for vigorous activity but we are prevented from acting. The result is stressful. If these reactions cannot be turned off easily or if they occur too often, we will get sick with such ailments as high blood pressure, heart attack, stroke, headache, backache, ulcers, diarrhoea or constipation.

MANAGING STRESS

In order to avoid illness it is important to learn to recognise and manage stress. Most experts agree that there are four major factors that are important in managing stress — diet, exercise, rest and relaxation. Of these relaxation seems to be the most important. At school we are taught the benefits and most effective ways of exercising, as well as the importance of good diet and the need for rest. Unfortunately we are not generally taught how to relax.

One simple way to learn to relax is to gain some control over the sympathetic nervous system. Normally we are not aware of its effects on our bodies, but if we are to control them we must become consciously aware of its action. Bio-feedback is one way to become aware of and begin to control sympathetic activity. Complex and expensive electronic devices can be used to monitor sympathetic effects on the digestive system and heart, but skin temperature is also controlled by the sympathetic nervous system and is relatively easy to monitor. Normally the temperature of your body (your 'core' temperature) is about 37°C (98.6°F) plus or

minus 1 degree under reasonable environmental conditions, in the absence of disease or infection. The temperature of your skin however can vary from 20-40°C (68-104°F). There is an extensive network of small veins (venous plexus) which is supplemented in some areas such as on the hands, feet, lips, nose and ears with numerous connections between the arteries and veins in the skin. These blood vessels open and close in response to changes in environmental temperature.

Under reasonable environmental conditions of 21-27°C (70-80°F), blood flow through the skin is about 400 ml (14 fl oz) per minute. In severe cold this can be reduced to as little as 50 ml (2 fl oz) per minute, and when environmental temperatures increase blood flows through the skin can increase to 2800 ml (5 pt) per minute. The major source of internal heat is from the digestion of food — about 55 percent of all the energy from the breakdown of food becomes heat. Most of the remainder of this energy is stored in chemical bombs called ATP molecules. When energy is transferred from the ATP molecules to the functional system (muscles etc) another 20 percent is lost as heat. Since our bodies maintain a constant temperature, this heat must be dissipated, mainly by the skin and some via the lungs. If the body is warmer than the surrounding air, heat is lost by radiation or conduction. If the surrounding air is warmer heat is lost by evaporation of sweat.

These blood vessels also open and close in response to sympathetic activation i.e. when you are preparing to fight or flee. When the body is preparing for a fight you do not want very much blood in your skin because if you are wounded you will suffer blood loss, go into shock and die. Similarly if you are preparing to run away, you want most of your blood to go to your muscles to provide oxygen and nutrients. This change in blood flow by the sympathetic nervous system is essentially automatic and you do not usually have any conscious control over it. When confronted with a stress agent your body responds. It does not know that most of the time you will not fight or flee. If you can learn to raise the temperature of your skin you will decrease the effect of sympathetic activation. This decrease in sympathetic activation will be generalised, causing a corresponding decrease in heart and respiratory rate, increase in digestive activity, and so on. If you use simple bio-feedback principles to learn to raise the temperature of your skin you will also decrease sympathetic activation and find that you are increasingly relaxed.

PRACTISING BIO-FEEDBACK

You will need to set aside 15-20 minutes for your bio-feedback exercises and it is best to choose a time of day when there will be a minimum number of interruptions such as telephone calls or children's demands. These exercises should be done in a quiet environment. A cool room which has subdued lighting and is free from distractions is ideal. Select a comfortable relaxed posture, one that you can maintain with a minimum of movement. Generally a semi-reclined position is best because if you lie down when you relax you will probably fall asleep. You can use these same exercises at bedtime to help you to fall asleep but when you

are attempting to relax you want to stay awake and experience the effects of relaxation. It is best not to schedule your bio-feedback exercises an hour before or after eating, as thinking about food and/or digestion apparently interferes with the ability to relax. Many people find it easier to relax if they record or listen to some soft soothing music. Messages such as 'relax', 'breathe slowly and deeply', 'my hand is getting warm', 'my hand is getting heavy', 'hand's warm', or similar phrases recorded with the music may help facilitate relaxation.

When you are ready to do your exercises, if you have any tight or binding clothing, remove or loosen it. Also remove any heavy jewellery and your shoes. If you are using a tape recorder turn it on, then get into your comfortable position and begin to breath slowly, deeply and rhythmically. Try to clear your mind of distracting thoughts. One way to do this is to find a focus for your attention. People who meditate use this mental device. This can be a single syllable word such as 'one' that you repeat to yourself in time with your breathing, or an exhaled breath. Another device is to fix your gaze on something such as a candle flame. As you do this you will note that your skin temperature begins to rise and you will experience a comfortable warm feeling. Most experts agree that a skin temperature of about 35°C (95°F) indicates a very relaxed state. You may not achieve this on your first try but if you practise these exercises on a daily basis you will eventually reach this level.

Once you learn the technique of raising your skin temperature in a quiet calm environment you can begin to transfer this same technique to raise your skin temperature during the day when you are feeling stressed. At these times you will allow your body to remember the relaxed state and find that it will.

Information courtesy of Blackmores Communications Service, 23 Roseberry St, Balgowlah 2093. Blackmores produce a wide range of vitamin and mineral products based on natural herbal ingredients. They are available in health food stores and pharmacies.

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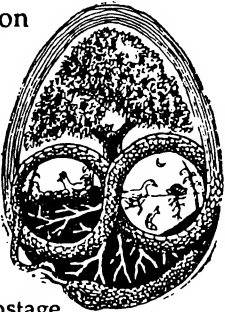
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Commonsense Tanks

by Ben McLean, Ravensthorpe, WA.

After a brief glance at the plans and specifications for building your own concrete tanks (GR 67, p. 56 and GR 68, p. 53, 'Circular Reinforced Concrete Farm Tanks'), I would suggest that it is a very expensive tank for the average *Grass Roots* reader. There are simpler alternatives — ferrocement for one. Or get any size old tank (corrugated galvanised iron) and plaster inside with a coarse sand/cement mixture — 3 parts sand to 1 cement). Fine gravel is OK for the first coat, but the final two coats require clean coarse sand. Tanks 9000-13,600 lt (2000-3000 gal) are an ideal size.

The method is simple, but does require careful attention to the following steps. Start by cleaning inside the tank thoroughly with a wire brush and patching any holes — up to about the size of a golf ball — with a piece of galvanised iron and pop rivets. One or two larger holes will be OK, but the tank needs to be reasonably sound, with not too many holes or rust patches. If the tank has no bottom in it, put at least 13-15 cm (5-6 in) of good concrete in it, plus a bit of mesh or netting (concrete mixture about 5 gravel/sand mixture to 1 cement). Don't forget to put in a 60-90 cm (2-3 ft) length of 25 mm (1 in) galvanised pipe with a tap on it under the concrete floor and sticking out of tank 10-15 cm (4-6 in). Outlet pipe in bottom is best if it has a 7.5-10 cm (3-4 in) bend in it embedded in the mixture.

Plaster a fairly thick coat onto the inside using above 3 to 1 mortar mixture. Make thick enough to completely cover and hide the corrugations and slap it on with a plastering trowel and hawk. Don't fiddle with it as long as it stays on — if inclined to fall off the coating is a bit thick, or mixture could be too wet. After allowing it to dry for about 24 hours apply a second coat approx. 13-19 mm (½-¾ in) thick. Apply a third coat when this dries out — the final coat can be made smooth if you want it to, but previous coats leave rough. Use a cement waterproofer in all mixtures.

Hot weather is best avoided but providing tank is well shaded with something and not let dry too quickly it's OK. If possible do cementing in cool weather. Common sense is always needed especially when climbing in and out of a tank that you've just plastered.

Cement mixtures are amazingly versatile and can be used in many ways on tanks and various other spots around the house and farm. I personally have plastered about 15-20 tanks during my 60 odd years of messing around — farming, living and in one loyal marriage for 35 years with 5 children grown up. I am just finishing building a small lovely stone house, colonial style, two storey with not a brick in it and definitely no plastered walls inside, just lovely stones all colours — and plenty of cement.

HANDY HINT

- If you haven't saved certain seed from last year, don't rush out and buy the seeds. Find the best sample of the fruit or vegetable you require in the shops and buy that, then you have the fruit or vegie to eat, and the seed inside for free, e.g. capsicum, cucumber, tomato, marrow, melon and pumpkin.

NEW LIFE FOR OLD LINEN

by Jane Smith, Mooroolbark, Vic.

In a line that could have come straight out of a television commercial for a spray-on laundry starch, my daughter said, with the right tone of exasperation in her voice, 'Mum, why is it that now I've been using and washing that lovely old linen from Grandma's place that you gave me, it has gone all soft and creases up in no time?'

I pretended that I hadn't noticed that the stiffly starched white doilies and table centres with frosted lace edgings were looking somewhat limp since I'd passed them to my daughter, straight from my linen drawer where they lay in layers like thin sheets of cardboard. Not all the contents of that drawer are family heirlooms, so I still have plenty left for my own use. Many a time over the years I've paused by the jumble sale table of a school fete or church fair, in time to rescue a sad and even grubby swatch of old linen with embroidery on it in matching linen thread or in coloured cottons, sometimes with a complete edging of crocheted lace. Somebody made that at least half a century ago or more, I'd muse, when she was a girl doing fancywork for her glory box, her head full of dreams about Mr Right.

Generations have passed, and a romantic young girl's work ends up in a modern household where the art of stiff-starching has been forgotten. A limp table centre soon creases, its beauty becomes veiled, and lovely old embroidered linen can end up being tossed into a bag destined for a local fair or the op shop, perhaps even the town rubbish dump. Somewhere along the way, with a bit of luck, that sad old rag will be recognised for what it is. Rescued, laundered, stiffly starched and ironed back to their former beauty, lovingly handcrafted old linen pieces can once more grace a table or sideboard of their own era, which have nowadays become antiques and collectable relics of our historic past.

'How do you make that stiff starch Mum, and why doesn't it stick to the iron when you iron it?'

Well! What a flush of pleasure it brings to the cheeks, I must say, to be actually asked for advice on how things were done back in those days before artificial fertilisers and chemical sprays and calculators and computers and spray-on starch.

'I'll write the recipe for you,' I offered eagerly. 'And I'll make you a waxing pad too, for ironing the pure linen so the iron won't stick to the starch . . .'

So I sat down to write about stiff-starching as I'd seen my mother do it on Monday washdays and Tuesday ironing days, during the early 1930's depression days when I was a young child. Oh yes, Silver Star starch had been on the market for years even then, and was very good for stiff-starching all household linen from teatowels to pillowshams, as those richly embroidered, never-to-be-slept-on day covers for pillows on the bed were called. Silver Star starch even put a fine cutting edge on the collars of blouses and shirts. But even older than Silver Star starching was the method my mother used in those days of household budgeting stretched drum-tight for survival purposes.

It occurred to me as I sat at the table with my daughter, my biro in hand, that my generation was the last one to witness

many of the old methods used to get things done around the house and yard in those years before the great changes that followed World War II. Old age is always fifteen years later than one happens to be at the time of reckoning, it has been said. Before we get old then, perhaps my generation should pass on some heirlooms of the less material kind, as well as our treasured linen? The knowledge of homely things that was once passed on in daily living may yet be needed again, like the fine old doily that graces an antique kauri wood table.

The notes on making starch and turning limp old linen into crisp table centres that I made for my daughter turned out on reading later to look exactly like the science notes we made for Miss Jolly, our science teacher of long ago. There we sat in our white bobbysox and baggy navy blue serge gym tunics that reached halfway down our shins because we would 'grow into them,' and copied from the blackboard Miss Jolly's words and drawings, right down to the little dashes that so well represented water. Strange to realise that the dear lady's influence remains with me still, like a watermark through paper. How many more of those teachers at school and in life itself live on in us, I wonder?

THE STARCH

Mix a heaped tablespoon of flour (cornflour, arrowroot or white wheaten flour) in half a cup of cold water. Add a teaspoon of methylated spirits. Stir until it forms a smooth paste with no lumps. Boil the kettle and pour six cupsful of boiling water into a bowl. Give the starch paste in the cup another stir and add it at once to the hot water in the bowl, stirring the bowl contents quickly all the time to prevent lumping-up. The starch turns into a transparent thin glue in appearance (and it can be used for glue too, if needed, like wallpaper paste!). Pour the hot mixture through a strainer and it is ready for use.

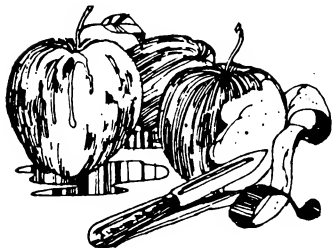
At this strength it gives a good body to linen that is required to be really stiff, such as doilies and table centres. Add a little water and stir, if less body is needed in the articles to be starched. It isn't a bad idea to keep a few articles to be starched until a washday when you do them all as one lot. Beginning with the articles that you want to be really crisp, a little water can be added to the starching mixture further on, for the things that follow.

THE METHOD

Wash all articles to be starched, rinse well, wring out and put aside in a bowl. Beginning with the article meant to be stiffest, shake loose and lower into the starch mixture. Squeeze out gently and put aside in a bowl ready for pegging on the line. Hang all starched things together and apart from the rest of the washing on the clothesline. (If the wind catches a starched wet cloth on the line, it can flap onto your unders and make them stiffly starched too!)

When dry, remove all articles from the line carefully because edges can stick together and need to be peeled apart. Damping-down and leaving wrapped in a towel overnight was the way things were done in my mother's day. I never told her

CANCER LINK TO APPLES



A chemical used on some Australian apples is suspected of possible links with cancer. The United States Government is considering banning the chemical, known in Australia as Alar, and has given information to the National Health and Medical Research Council for investigation here. US tests have found a direct link between Alar and cancer, indicating that a lifetime of exposure to the chemical could cause five deaths for every 100,000 people exposed.

Studies show that Alar is sprayed on 14 percent of Australia's apple crops, including 28 per cent of the country's red apples. Alar is used to make apples bigger and brighter. It is absorbed by plants to enhance even growth and help preserve apples. Tests on mice suggest that Alar, marketed in Australia by ICI, may promote the development of cancer. Further tests are planned by the NHMRC.

The US Environmental Protection Authority said the cancer risk from Alar is not high enough to warrant immediate removal but it urged Alar's producers, Uniroyal, to withdraw it from sale pending a possible ban. A Department of Agriculture spokesman said a planned national register of agricultural and veterinary chemicals would help Australian authorities investigate chemicals under health doubts.



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gr

Making a wax pad for smooth ironing.

1. old sock

2. leg section

cut off foot

wooden block

3.

grate wax onto here

that sometimes I took a short cut and just sprayed the dry starched things with water as I ironed, when I was in a hurry. She would have been horrified.

Damping down means that the dry starched articles are sprinkled with water thoroughly, individually rolled up tightly, then packed together on a towel and rolled up into a bundle, to exclude drying air. Leave for a few hours, or better still overnight, before ironing.

IRONING

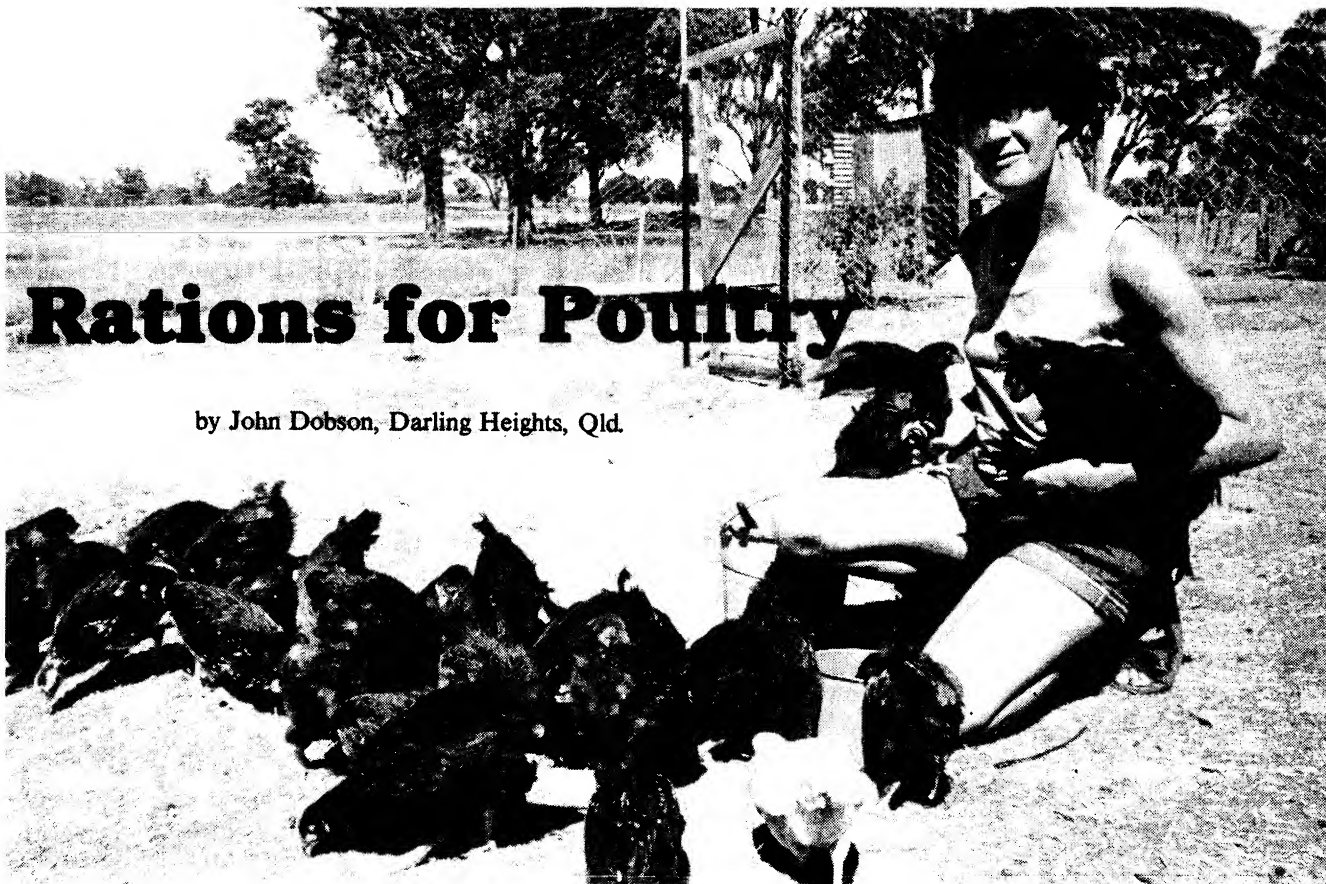
Remove and iron one article at a time, keeping the rest of the things covered and moist. Set iron on linen, and use on the steam setting if you have one. Run the iron over a waxed pad before beginning to iron and now and again whilst ironing, and iron quickly so that sticking is avoided. Ironing on the wrong side of the fabric also helps to bring up the embroidery in relief. Once ironed, hang each article over a clotheshorse rung to air out and stiffen further as it dries right out.

When starched and ironed and aired, old linen looks as fresh and lovely as when Grandmother had it, and will retain its crispness for a long time. Store flat in a drawer or a cupboard shelf without folding, if there is space for that. A lavender bag left with the linen gives a final touch of fragrance to the stored treasures.

TO MAKE A WAXED PAD

Cut the foot section off an old woollen sock with plenty of leg to it. Wrap the leg section of wool sock around a flat piece of wood about the size of a cake of soap. Stitch the ends down, and this makes your wax pad. Grate a teaspoonful of white candle or preserving wax onto the smooth side of the pad and melt it into the wool fabric by ironing over it.

When ironing, keep the pad by the iron-stand and run the iron over it before commencing ironing and now and again as you work. Ironing becomes so much easier and sticking-free when a waxed pad is used, especially when starched fabrics are being ironed. As time goes by, give the pad an occasional spoonful of grated wax melted in, to keep it in condition.



Rations for Poultry

by John Dobson, Darling Heights, Qld.

Assuming that most GR poultry fanciers allow their flock free range for at least part of the day, then pellets or commercial mash are unnecessary. A handful of grain per fowl, or a handful to every 3 bantams, at late afternoon is the only supplement required for layers, growers or young birds and breeding birds.

Oats are the best grains to feed, either whole oats, clipped oats or crimped oats being fed to mature birds, while hulled products such as pinheads, oat groats or oat flakes are fed to young birds. Oats should never be fed to chickens (i.e. up to 16 weeks old) as they cause pasting up of vents. Feeding whole oats free choice to adult birds should practically eliminate feather picking, cannibalism and pick outs. If feeding oats you should bear in mind that unless oats weigh 18 kg (40 lb) or more per bushel their value as feed is questionable and if weighing less than 14.5 kg (32 lb) per bushel should never be fed as there is almost no feed value.

Hard wheat is of good value for all ages of poultry, and is the preferred choice over summer, or other periods of high temperatures. Kibbled wheat can be fed to baby chickens up to 9 weeks, after that they can manage whole wheat. However ensure that you are feeding quality hard wheat, if you buy cheaper grain then obviously the food value is less.

Corn can be fed, however if too much is fed birds will fatten, a condition not wanted in breeders and layers. Chopped corn is the best feed, often called 'Chicko'. The finer chopped corn, about the consistency of fine sand, should be fed to baby chicks and young growers, whole kernels can be fed to mature birds. Feeding corn, or maize as it is also known, tends to reduce the number of eggs produced by layers. It is excellent for feeding birds intended for the table,

and for those who keep exhibition stock its high content of xanthophyll ensures brighter colours and yellower skin and legs. Maize should not be fed in the hotter months but is best used in limited quantities in colder weather. It is good for feeding as an evening feed to keep the birds warm overnight. As maize contains 73 percent warming and fattening material, 11 percent flesh forming material, 1 percent bone forming material, compared with oats which contain 53 percent warming matter, 15 percent flesh forming matter and 2 percent bone forming matter, you can see that feeding maize during the heat of the day will cause the bird to heat up. Barley, which contains 61 percent fattening material, also causes birds to heat up and once again should be fed in small amounts in the evening in colder weather. Wheat is the best grain to use during the hot weather for feeding in the morning.

There are other seeds and grains that will also be of value to your poultry. Linseed is of much benefit if fed during the moult. A cupful of linseed, cooked gently in a quart of simmering water for 20 minutes until it turns into a jelly, can be added to wet mash and will encourage the growth of new feathers. Do not feed more than 5 percent however as linseed has a laxative effect. Several tablespoons of the jelly added to a 4 litre (1 gal) container of mash is sufficient. Once your birds are beginning to moult, feed them foods containing amino-acid cystine, such as skim milk, fish meal, meat meal or small scraps of meat.

Ensure that these foods, and wet mashes, are removed from the birds after they have eaten their fill — about 20-30 minutes should allow them enough time to eat all they want. Never leave food lying about — protein foods and wet mashes will go off and may cause the birds to suffer bacterial and

mould induced disease such as aspergillosis, salmonella pullorum or botulism. Uneaten food also attracts rats, mice and sparrows.

The same applies to water, it must always be fresh, changed every day in cooler weather and several times a day during hot weather. Toxicity can easily occur from algae infested water. Poultry will refuse to drink excessively warm water so their supply should be kept out of direct sunlight and there should be only one source of water available to the birds. You can guarantee that if there is a dirty puddle of water they will drink from that instead of the clean water you've given them.

Green feed is the easiest food to provide. Have a constant supply of lettuce leaves, cabbage leaves and stalks, weeds or bunches of grass available to all caged birds that do not have access to free range. Most vegetable leaves are suitable for green feed. If no green feed is available your hens will eat their straw or hay litter and this will bring problems with disease such as coccidiosis.

I feel that anyone who prepares their own starter or grower rations is courting trouble. It is important to feed baby chickens (to six weeks) with proprietary mashes because:

- The necessary fineness of the mash is difficult to achieve if preparing from grain.
- Mashers such as chicken mash and growers mash contain ingredients that prevent diseases like coccidiosis and make the day to day management a lot easier. By feeding these mashers you can rest assured that your chickens are protected and you do not have to worry about dosing them regularly by doctoring their water supply.

- The proportions of proteins and other nutrients are most suitable for those chickens that are confined and unable to obtain a balanced ration by free ranging. Chickens, poults etc have very specific needs for minerals, vitamins and trace elements that must be supplied in measured amounts if the birds are to be kept intensively or semi-intensively. If the birds are allowed free range they will obtain their needs naturally, but this method is not practicable in most parts of this country because of predators. A home produced ration will certainly omit some of the ingredients, and it will be impossible to achieve the correct proportions unless producing the ration by the tonne, for example, trace elements such as cobalt, molybdenum and iodine are required at the rate of only 1 or 2 g per tonne (1-2 parts per million). Chickens that have free range will still benefit from having starter mash available to them.

- These rations are very cheap to purchase, and are needed in very small quantities.

- Most readers are likely to keep several different species such as chickens, turkey poults, goslings, keets and ducklings. These species each require starter and grower rations with varying proportions of nutrients but I think most people with small flocks probably feed them all the same ration. This leads to poor results as the needs of a chicken are different from those of a poult, keet or gosling of the same age. For this reason alone I think that you will be a lot better off buying proprietary rations for each species. If a duckling is fed chick starter it will not thrive because the anti coccidant used in chick starter is toxic to ducklings. If a duckling or gosling is fed a starter or grower ration with too much protein, it will

develop slipped wings, nephritis or visceral gout.

- All mashes must be fresh, it would be difficult to ensure this if producing your own. Proprietary mashes can be bought in quantities sufficient for a month or so, and you can be assured that the product is fresh if obtained from a dealer where the product is made every week or so. Once growers achieve full feathering they can be fed the same ration as your other adult birds.

I know this sounds like a plug for commercial interests, but my experience has shown that the commercial rations are vastly superior to anything you can make at home. I would liken this to producing your own petrol for the car — it is not difficult to do so but you will be causing all sorts of unseen problems, such as burnt valves, because you cannot add the correct ingredients like lead to prevent this, or you will be polluting the air with all sorts of noisy emissions.

If after these warnings you still wish to produce your own starter and grower rations, the following guidelines should be useful. Note that these formulations are intended for chickens, growers and fowls — they are *not* suitable for any other species such as turkeys or ducks, although they will be quite adequate for guinea fowl:

- Brooding chicks (day old to 6 weeks) — grain, 75 percent; meatmeal, 10 percent; soybean meal, 6 percent; peanut meal, 4 percent; milk powder, 4 percent; salt, ¼ percent; hardgrit, ¾ percent; vitamin A, B, D supplement, add as directed by manufacturer.

- Rearing chicks (7-16 weeks) — grain, 72 percent; meatmeal, 11 percent; lucerne meal, 4 percent; pollard, 12 percent; salt, ¼ percent; hardgrit, ¾ percent; vitamin A, B, D supplement, add as directed by manufacturer.

- Pullets, hens (17 weeks or older) — grain, 79 percent; meatmeal, 12 percent; lucerne meal, 4 percent; lime, 4 percent; salt, ¼ percent; hardgrit, ¾ percent; vitamin A, B, D supplement, add as directed by manufacturer.

Further Reading

Poultry pages of weekly farming newspapers.

Poultry magazines — particularly the *Fanciers Gazette* \$12 per year, published by the Bantam Club of NSW, 291 Galston Rd, Galston 2159.

Agnotes on practical poultry management from Depts of Agriculture or Primary Industry in your state.

A Guide to Better Hatching, Stromberg.

The Incubation Book, Dr A F Anderson Brown. These may be available from the Bantam Club of NSW, a good source of overseas publications at reasonable prices.

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FIRST AID AND THE LONE WORKER

by Clarissa Townsend, Caloundra, Qld.

For me, working alone is a way of life and I take for granted the occasional injury. Most tools are designed for men and we women sometimes have difficulty using them — with the inevitable resultant injury risk. I therefore keep a first-aid kit in house and car, and I've used its components to successfully treat some pretty bad injuries and never had to go to the doctor. The following methods have worked well for me over the years and I hope other lone workers, and anyone else for that matter, can gain some benefit from my experiences.

PREPARATION

I keep the following items in a supermarket bag and replenish as necessary:

- 1 dozen butterfly closures (medium)
- 1 dozen fingertip dressings (large)
- 1 box continuous Elastoplast
- 1 pkt Band-aids
- 2 pkts Melolin non-adherent gauze dressings
- 2 rolls elastic gauze bandages
- 1 roll Micropore
- 1 pkt pain relievers (non-aspirin)
- 1 roll of cotton wool
- 1 pkt cotton buds
- 1 pkt tissues
- 1 jar Ungvita
- 1 bottle peroxide
- 1 bottle sunscreen
- 1 bottle Visine eye drops
- 1 bottle Rescue Remedy (Bach flowers*)
- 1 sock
- 1 pair tweezers and 1 strong needle
- small scissors
- scalpel blade (make a little cardboard scabbard for it)
- 1 'Bear' brand rescue blanket made by Norton Pty Ltd. It's made of foil and folds up to fit in the palm of your hand.

A mature aloe vera plant also forms part of this kit and I've got plants in strategic positions around the place.

PRACTICE

The first rule of first aid is *don't panic*. Assess the injury calmly and take appropriate action.

Cuts

If it's a cut, even from a kitchen knife, press cut back together and hold with reasonable pressure for about 10 minutes. Do this irrespective of how unclean the wound area is. You are on your own and you don't want to bleed to death while you fuss around cleaning it. That's perhaps a drastic statement, but you know what I mean. Don't let any bleeding occur if possible. It helps healing if you can stop it straight away. This causes congealing to occur inside the cut and when pressure is carefully released there shouldn't be any more bleeding. If it's a really bad cut apply a pressure bandage at this stage. Quickly clean wound area with water and make bandage with cotton wool or folded sock and elastic bandage. Leave on for 1-2 hours.

For an ordinary cut, once bleeding has stopped carefully and gently clean area with water, or peroxide in the case of foul debris. Cut a piece of aloe vera, scrape gel from skin and mince up with sharp knife. Apply to wound and cover with Elastoplast pulled firmly. If dressing is likely to stick to wound, cut a piece of non-adherent gauze and put aloe vera on that. Use Micropore or Elastoplast to cover. A long cut that needs stitches can be pulled together with the closures or Elastoplast applied parallel to cut, pulling cut together as it is stuck on. Change the aloe vera 3 times daily. Healing will be noticed within 24 hours generally.

Falls

A bad fall from height or horse would require a rest period, during which you should give attention to body signs (observe pulse, breathing etc). If shock or concussion is resultant, use the rescue blanket. This would probably be the only time I would seek professional help, if I thought I had a broken bone (none yet though — we women are pretty resilient you know, and we do bounce!).

Other Problems

- For all abrasions, barbed wire cuts or scratches just apply Ungvita. Use Ungvita on cuts after 48 hours use of aloe vera dressings. Ungvita is a natural ointment made from fish and contains considerable vitamin A. It is available at chemists and is very good for inflamed wounds or to stop same.

- For burns, plunge affected area into cold water for 5-10 minutes. If skin is not broken this should be the only treatment. If skin is broken, apply mashed aloe vera but don't cover.

- Sprains should be plunged into cold water for 20 minutes to avoid swelling. Do this immediately after accident, then use hot and cold compresses and support with an elastic bandage.

- Heat exhaustion requires rest in the shade and small frequent cool drinks of water. Remove all unnecessary clothing.

- Bad sunburn requires several cold showers to take heat away, then apply mashed aloe vera. Later on body lotion will be found effective against peeling. Use it often over several days. Next time wear sunscreen.

Further Treatment

Understandably, some injuries are bad enough to warrant medical assistance e.g. severed fingers, but generally we can fix our own little bits and pieces with less hassle. I generally go straight back to work after attending to an injury without any after effects or need to seek medical intervention at a later stage.

Take the Rescue Remedy (5-15 drops on tongue) every 15 mins if you feel woozy, and rest. Healing comes from within, so good diet is a good first aid. Vitamin C which promotes healing should be taken regularly and increased during times of stress and injury risk. Take extra vitamin C immediately after a bad injury too, along with Rescue Remedy.

I also treat my horses, cats and guinea pigs the same way as myself. Wire cuts on horses respond very well to the same medications. The above methods may not be conventional, but I don't much believe in Western medicine and have faith

that I know what my body needs. I also have some bushman's remedies that I use with success, mainly on the animals.

An acquaintance said to me once that she didn't use her aloe vera plant anymore. In amazement I asked why. She said that it was a young plant with only a few leaves and after just a few cuts in her household there were no leaves left on the plant. They were breaking off the whole leaf just to use a little of the gel! I explained to her that the plant would seal itself back up again after just a small piece was cut from the tip of the leaf. Take only what you require. A leaf will however last for a couple of weeks if wrapped in plastic and kept in the fridge. Or just kept in a cool dark place, it will last 3-4 days, so can easily be taken on working or camping weekends. Mature plants are more beneficial than young ones.

Preventative measures, such as the wearing of leather palmed gloves and sturdy work clothes and suitable hat and shoes, go a long way, especially when a person is working alone or in a remote area. And 'think before you act' will hold you in good stead on the building site or in the garden.

* Bach flowers are a system of therapy developed by Dr Edward Bach involving 38 European flower essences which are given orally for various emotional imbalances. His Rescue Remedy, a combination of 5 essences, has been recommended by many readers for emergency treatment of human and animal patients.

MIRROR MAGIC

If your mirrors are getting old and have a few black flecks in them, fix a sheet of kitchen foil behind the mirror glass.



CHEMICAL FREE FLY TRAP



If your cattle are troubled by flies you could try building this non chemical fly trap based on an old idea that still works. University of Missouri scientist Robert Hall says the trap was invented by a USDA entomologist in 1937, before widespread use of chemicals. It went out of use when DDT became widely accepted after World War II, but because horn flies have developed resistance to many existing chemicals, it's time to take another look at no-chemical solutions to the problem.

The trap's big enough so cattle can walk through, and is normally positioned along a natural walkway. As they pass through, strips of carpet hanging from the top of the trap brush off flies. As the disturbed flies scramble off the cattle, they head for light along the sides of the trap. They're forced to crawl through horn-shaped screens with a small hole towards the light. Once they get through the hole, they're trapped along the outer sides of the trap. Flies die there and fall to the ground.

To order a free set of plans to make your own fly trap, contact: Robert Hall, Dept of Entomology, 1-87 Ag Building, University of Missouri, Columbia, Mo. 65211.

There is more fatigue in laziness than in labour.



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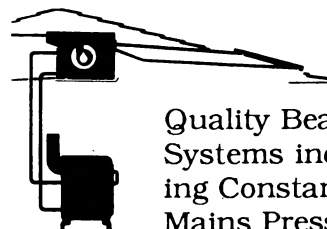
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YOU CAN START A SMALL BUSINESS

by Rita Summers, Pioneer, Tas.

I have never regarded myself as a business woman, and never dreamed that I would ever have the courage to start my own business. I'm not going to write in terms of big business, big profits, or big investments. I'm talking about the kind of business that just makes a bit of profit, is small enough to run on your own or with your partner and makes use of something you really enjoy doing. It sounds like a great combination and it's amazing how straightforward it can be to carry out.

Unemployment is a problem that affects nearly every Australian family in some way, and I strongly feel that by starting your own small business you can actually create your own employment. Too many people these days assume that to be successful you have to 'think big', but I think that this attitude is often the beginning of big problems. These problems often include damage to the environment, disregard of individuals, sacrificing of integrity, over-commitment (i.e. huge expenses which put incredible pressure on the operator to succeed), impersonal service and, last but not least, worry, which leads to stress and related health and mental problems. A small business which is reasonably profitable, gives you enjoyment and provides something people need is such a rewarding way to make a living. Even if it is so small that it only supplements your income, it is still worthwhile.

One of my dreams has been to operate a small shop to sell things that I've made. Another dream was to design and make clothes. Instead I became a teacher, partly because the opportunities for fulfilling my dreams were not available where I lived at the time I entered the work force. However, my teaching training and experience gave me the confidence to talk to people, to project myself more, and gave me better organisational skills. Thus, even though I was not doing what I originally wanted to do, I was gaining a lot of valuable experience.

After a number of years of full-time and part-time teaching, I decided that the time had come to start doing something less stressful and time-consuming and to turn my energies to making my dreams come true, if only in a small way. The impetus for this was an interview I heard on ABC radio in early 1987. The person being interviewed was Mary Elliott, who co-authored the Australian edition of the book *Starting a Mini-Business* by Nancy Olsen. Mary Elliott had been a nurse and worked overseas and in Australia before her marriage. After her three children came along, her hobby

of ceramics grew into a mini-business. She was so inspiring and full of ideas that I couldn't help catching some of her infectious enthusiasm. I ordered the book immediately from the book shop and read it from cover to cover. It is very easy to read, is full of case histories and covers everything from exercises to get your brain working to ways of making sure your business is legal. I strongly advise anyone who is considering starting something to read this book. It is a gem.

As I read, I realised that if I put my sewing ability to work, I could do it with a minimum of outlay and I could do it from home (this was important to me as I still had one pre-schooler). I already had most of the equipment and I knew where to get some of the raw materials very cheaply. Another important influence on starting my own business was the trade name 'Derby Dungarees'. I can't claim to have thought of it myself — I wish I could! A friend suggested it to me.

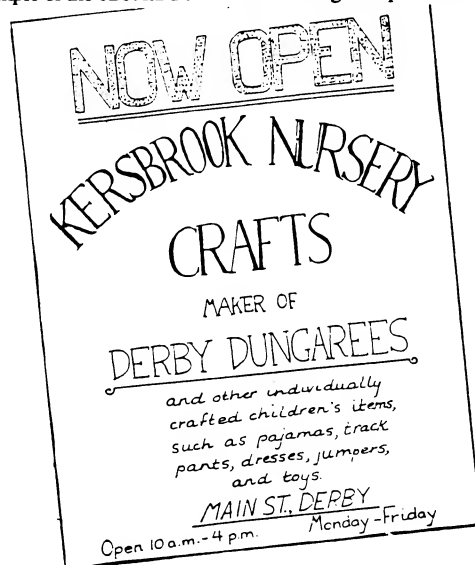
I will now describe the steps and processes I went through as I began setting the wheels in motion to use my hobby to earn income.

EQUIPMENT AND MATERIALS

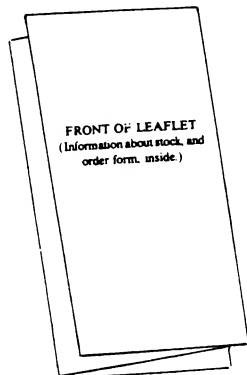
The most expensive single item would have been the sewing machine. Fortunately, I already owned a fairly new, good quality sewing machine. Importantly, it was robust enough and versatile enough to do the job at least for the initial few years. This was a saving of between \$500 and \$1000. Other necessary equipment included an iron and an ironing board, which I already owned. This saved an outlay of at least \$50. The fact that I already had the most expensive items was a big factor in deciding to start my mini-business. If I had had to buy them outright, things would not have been so simple.

If materials are too expensive, the ongoing costs could cripple you, or cause you to set your prices higher than people are willing to pay. I was able to buy denim cheaply (my main line is children's denim clothes), and also trade name labels, studs, swing labels and wash'n'wear labels. Except for the denim, I order these materials from the mainland. I found out

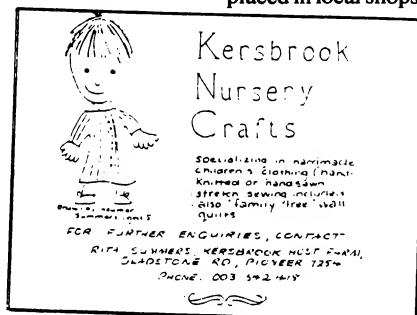
Eyecatching example of the circular I distributed through the post office.



Leaflet — A4 sheet folded in thirds.



This was enlarged for posters, photocopied and placed in local shops.



about them from ads (one was in *Grass Roots*) and through word-of-mouth. The denim is factory offcuts, which are good quality, up-to-date colours and cheap. I found out about that through word-of-mouth also. Until I found the address to order the studs wholesale, these were proving to be very expensive. It was actually a Sydney guest staying at our host farm (our other small business) who found this address for me. I also used the yellow pages in the telephone book.

Patterns have been quite expensive, though I have tried to circumvent that by buying multi-size patterns. It meant more work in tracing off the sizes, but once they were done they could be used repeatedly. At the beginning stage I was not confident enough to draft my own patterns, but I now often adapt and change existing patterns to create my own style. Sometime in the future (when time and finances permit!) I would like to follow a course on pattern drafting and design.

TRAINING/SKILLS/EXPERIENCE

Of the above three items, skill is the most essential. The other two things are very helpful, but not necessarily essential. You must be good at what you do, and be recognised as such. Other people's comments and reactions to what you make are a good guide (unless they want to spare your feelings and are kind because they love you!). After all, other people will hopefully buy your product, so their opinions are worth considering. Experience certainly helps you to iron out the numerous big and small hitches that continually arise. Through experience, you can find out the most efficient ways to work, you can build up speed and you can improve quality. You can also try out new ideas to see if they are workable.

Training is something I don't have, apart from the first few lessons on our treadle sewing machine from my mother as a 12 year old. I didn't do home economics at high school because I had to choose between that and art. I chose art, partly because I was already learning cooking and sewing at home. However, as I mentioned earlier in this article, I would like to do some training sometime in the future.

WORKSPACE

Some mini-businesses require little more than a desk, telephone and chest of drawers or filing cabinet. Those which fit into that category could virtually be slotted anywhere in the home. Others, like Mary Elliott's ceramics business, would need a

Trade name label woven on cloth, blue background, white lettering.

DERBY DUNGAREES

Wash 'n' wear label printed on cloth.

This is white cloth with black lettering. It is folded in half along dotted line and sewn into neck or waist seam.

CARE INSTRUCTIONS

warm hand wash
do not bleach
do not hand wring

dnp dry
warm iron
dry cleanable

whole room, to include workspace, display space, kiln and storage. Ian (my husband) had already built me a workbench with storage underneath and shelves above. This was adequate for materials, patterns and doing the sewing. I couldn't draw or cut out patterns there, but our kitchen table was just the right size. It is best not to put too much outlay into workspace, in my opinion, unless it is absolutely essential, or unless you are certain the amount of profit would justify the expense. It is much better if you already have the space or can convert an area of your home, garage or shed.

I wasn't sure if I needed permission for my operation, since I wasn't actually starting a shop. What I planned to do, to begin with at least, was to work from home and sew to order. I thought the most diplomatic thing to do was to write to the local council explaining my plans. Councils like to see progress in their municipalities and I received a very encouraging letter from them. There was no cost apart from the postage stamp and paper. Of course, if you plan to put up a workshop or other small building, the council would require submission of plans and specifications with accompanying fees.

OUTLETS

As I mentioned earlier, I did not begin with a shop (although I have now had one for about six months). I planned to sell from home initially, through private orders. These would be both from local people and by mail order. To do this, I had to decide what items I was going to sell and combine them onto an order form. In this way, people could choose style, colour and size and I could show what was available without having a lot of stock made up. Ads were placed in *Grass Roots* Grassifieds, posters were put up locally and small ads placed in the school newsletter. This latter was possible because I was also willing to make school uniforms.

Soon after I began I had a stall at a local carnival-like event called 'The Derby River Derby'. Although the weather was terrible and business wasn't good I did sell a few things. Also, it put me in the public eye and more people began to take notice. One person who noticed was a basketmaker who was about to open a craft shop in Derby. He asked me if I would like to sell some items in his shop. He was being fairly selective in what he wanted to sell so I felt quite honoured. He had also seen a few of my things in another craft shop in Branhholm, which kindly took them to sell for me after the washout at the River Derby. I began to make more sales and because my clothes were on display I also began to receive enquiries about private orders.

After 10 months, I felt that I was selling enough clothing to try opening a shop myself. Rent in small country towns is quite low and on making enquiries I was able to rent a large room in Derby for \$20 per week. I will still continue to do orders, both locally and by mail. Of course, it took a lot of work to make enough stock, but it was extremely satisfying to see it all eventually hung up and displayed in my own shop. At the moment sales are building up with local clientele. As the tourist season approaches more tourists provide me with income by buying clothes. The name of the denim clothes makes them a good souvenir present for grandchildren/children/nephews/nieces of tourists. There is only one other shop in a 30 mile radius which sells children's clothes, so I realised that if I could keep my prices down and sell clothing suitable for

and attractive to local people, I had a market. This was a big influence on my decision to open a shop.

EXPENSES

Insurance

To begin with, everything was covered by our house and contents insurance and the public liability policies taken out for our host farm. Now that I have a shop I need separate insurance and public liability cover. At the time of writing, no reply has been received to my letter written 2-3 weeks before I opened, despite a phone call to hurry things along. If I don't get results within a week, I'll make enquiries elsewhere — I didn't do all that work to lose everything due to fire or burglary. Insurance is very important in my view; I value my work and time too much to risk not insuring my stock. Public liability is also very important: if customers trip and injure themselves on your premises, you could be sued for damages. Who could afford, in a mini-business, to pay \$500,000 unless insured for it?

Advertising

I try to keep the costs for this as low as possible. So far I've advertised through:

- classifieds — \$7-\$8 per issue for 'Derby Dungarees' ad;
- leaflets — (design costs nil as I did them myself) photocopying at 10c per sheet, print in lots of 50, cost \$5;
- posters in local shops — photocopying at 10c per sheet, print 5, cost 50c;
- school newsletter — cost nil.

The above costs were applicable when I worked from home. When I opened my shop I needed to let people know I was open, especially those on outlying farms. I did this through the Post Office with circulars — photocopying at 5c per circular (I fitted 2 on each A4 sheet), plus Post Office distribution \$6 per 100, 200 done so far, total cost \$22. I have also found out that the local newspaper will run a free editorial if you buy advertising space, even if it's only a small classified ad. You can even write your own article for them to use. This again is a small cost.

Having said all that, your best advertisement is by word-of-mouth. Even though I've only had the shop open for a short time, people who have been in once are coming back with their friends and relatives. Orders and sales have also been occurring because someone has seen a child wearing one of my clothes, liked what they saw and asked the mother where she bought them. If people are happy about your product they will tell people about it — sounds simplistic, but it's the truth. Likewise, if they're not happy with your product, they will tell someone about it, so this is a very important aspect of advertising.

Registration

Any business operation must be registered. This is done by filling in a form and sending it with \$50 to the Commissioner for Corporate Affairs in your capital city. The registration has to be renewed every 3 years. The certificate you receive should be displayed on your premises or you could be liable for a fine. This also applies if you operate an unregistered business.

Rent, Heating, Petrol

These are my regular expenses. If I sell 2-3 items per week, I've covered these three costs. This was another big factor in deciding to open a shop. The breakdown is:

- rent — \$20/week;

- heating — \$5/week (this will decrease to nothing in summer);

- petrol — \$15/week, making a total of \$40/week.

Materials

This is an ongoing expense. As I sew and sell my materials are gradually used up and need to be replaced. I need to make enough profit to cover this; on the other hand, if things don't sell the materials don't get used up as quickly. Thus, it does balance out, unless you are careless and overspend. It's better to buy materials in not too large amounts, but large enough to get the saving often associated with bulk orders. The main costs are:

- denim — \$3/metre (no minimum or maximum quantities set);
- heavy duty studs/fasteners — \$10 per 100 sets (I was paying \$3-\$5 per dozen in the sewing shops);
- zips, buttons, cottons — available cheaply from same company I get the fasteners from; I buy cotton by the cone as it is cheaper and lasts longer;
- trade name labels (woven cloth) — \$48/4 dozen;
- wash'n'wear labels (printed cloth) — 2c each;
- swing labels/business cards — I drew these up and photocopied them on coloured paper. To use as swing labels, I just punch a hole in one corner and write the size and price on the back. Cost is 3-5c each, as 6 fit on an A4 sheet.

Shop Furnishings

We are fortunate in Derby having a good second-hand shop. Some furniture came from there, some from home and one was bought privately. All in all, setting things up was quite inexpensive. With a pine kitchen dresser and side table, sewing desk, bentwood hat and clothes rack and two wicker chairs coming from home and a clothes rack made from wood offcuts by my father, other furnishing expenses were:

- pine shelves — \$12;
- sideboard with glass door and drawers — \$40;
- swivel chair — \$15;
- soft furnishings — 2 sets of full-length cream cotton curtains tied back with blue cottage print bows, 5 scatter cushions for chairs in blue cottage prints. I made these myself, and shopped around for inexpensive but tasteful materials. I was able to make all of the items mentioned for a total of \$36, plus about \$4 for curtain wire and screw eyes and hooks.

- carpet — this was a real headache, as there was no carpet and the existing floor was ghastly. We couldn't afford to buy even second-hand carpet. We let it be known that we were looking for some and a fellow across the road from my shop gave me a big piece of the right colour, in reasonable condition, but badly stained. This was soon remedied by hiring a steam cleaner for \$32.

Signs

It's essential in many small businesses to have eye-catching, attractive signs. This can be quite expensive, unless you can do good quality ones yourself or you know someone who will do you a favour. Fortunately my husband is rather good at doing signs, so he made and painted both the sign near the shop door and the sandwich board on the street. My shop is not immediately visible as you drive past and the sandwich board has been responsible for many of my customers.

Our dual swing label/business card. To cut costs I drew it up and photocopied it on coloured paper.



To sum it all up then:

- Turn something you enjoy into a little extra income.
- Be as self-sufficient as you can, which can save you money, but seek help for things you can't do or find.
- Listen and ask. Lots of people have cousins or aunts who know someone who lives next door to a person who can help you!
- Write down all your ideas. It's amazing how more and more ideas come into your mind as you think things through. My mind was buzzing with them and if I didn't write them down I forgot them again. Even if you can't carry them all out now, some could be developed later.

I hope I've started something by writing this article. Perhaps ideas are beginning to buzz around in your head. Don't push them away — encourage them and see where they lead you. You could be pleasantly surprised.

DRAWER DEODORISER

Try removing the musty smell from drawers by leaving them slightly ajar for a few days with screwed up newspaper inside. If this doesn't work, put some lemon peel in the drawer and leave it out in the sun for a few days.

Bungaree Earth Cottages



Self-contained Mud Brick Holiday Cottages
in a bushland setting overlooking National
Park in the heart of the Blue Mountains.

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C/- Post Office, Wentworth Falls,
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CFC AEROSOLS DEPLETED FROM SUPERMARKET SHELVES

Aerosols containing ozone-depleting substances will disappear from supermarket shelves by the end of 1989. The Australian aerosol industry has agreed with the Federal Government to phase out the use of chlorofluorocarbons (CFCs) and halons. CFCs are used as propellants in aerosol pressure packs. Scientists blame these chemical propellants for the depletion of the ozone layer, which is found between 20 and 50 km (12½ to 31 miles) above the earth and which screens out harmful ultraviolet radiation. This phenomenon has been particularly noticeable over Antarctica during spring, forming what is known as the 'ozone hole'.

An Ozone Protection Bill has been introduced into Federal Parliament. The Bill, developed in cooperation with the industries concerned, calls for a total ban on the import or manufacture of:

- aerosol sprays containing CFCs, from 31 December 1989 (with some exceptions for essential uses such as asthma sprays);
- 'do it yourself' auto airconditioning recharge kits, from 31 January 1989;
- disposable containers of CFCs with a net weight of 5 kg (11 lb) or less, from 1 July 1989;
- extruded polystyrene packaging and insulation containing or made with CFCs, from 31 December 1989;
- dry cleaning machinery designed to use CFCs, from date of enactment of the legislation.

Industry will be required to freeze exports at 1987 levels and then reduce them by 5 percent per annum. Fines of up to \$250,000 can be imposed on companies and \$50,000 on individuals who breach the restrictions on production, import and export of CFCs.

Eighty percent of aerosol cans in Australia do not contain any CFCs. The elimination of CFCs from consumer products is in line with announcements by the majority of aerosol producers in Britain and the United States. CFCs may still be used in essential medical and pharmaceutical applications and where safety requirements prevent the use of alternative propellants.

Australia is a signatory to the Montreal Protocol, an international agreement to limit the use of CFCs and other substances which deplete the earth's ozone layer. Its aim is to limit the use of CFCs to 1986 levels by 1990 and reduce their use by 50 percent by 1999.

Reprinted from *Minder*, Vol 4 No. 4, January 1989, Federal Bureau of Consumer Affairs, Attorney-General's Dept, Barton 2600.

CHROME CLEANER

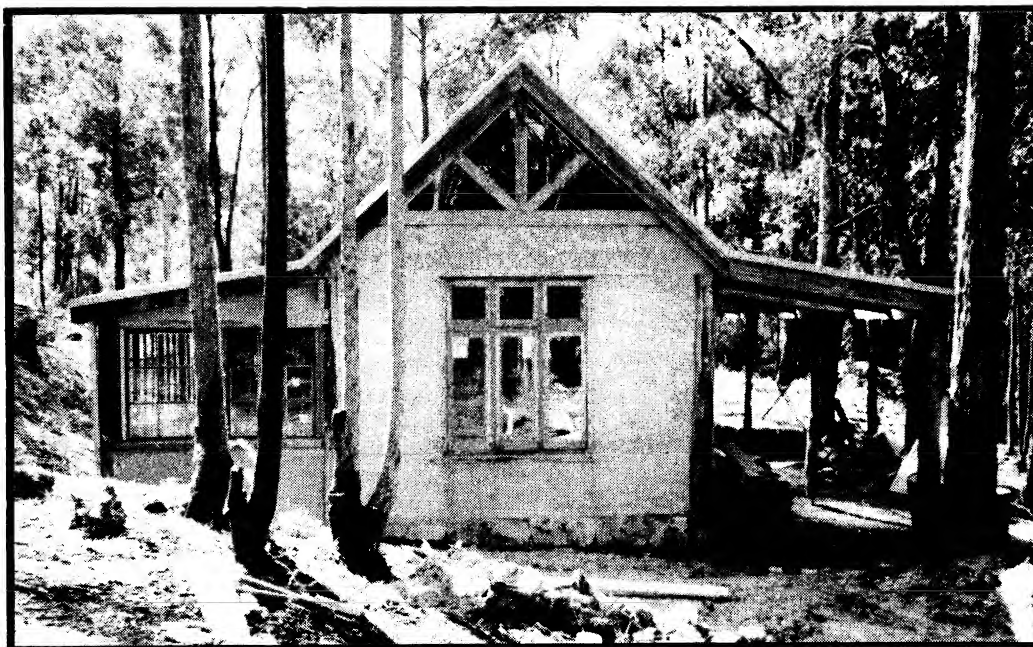
Use a little paraffin on a clean cloth to restore the shine to chrome.

HANDY LEFTOVERS

- If you own a juicer and do your own carrots and get a residue of carrot pulp afterwards, it can be used for carrot cake, coleslaw salads, feeding the chooks, or a natural dye for homespun wool (with alum as a mordant it makes a good yellow/orange dye). If you are really out of ideas as to what to do with it, use it as a mulch to pretty up the garden!

A SPECIAL SENSE OF BELONGING

by Anna Morton, Mt Helen, Vic.



This is the story of how my house was built. I have a special sense of belonging here — not only do I own the house and plan to live in it, but I built it myself, assisted at different stages by one or other of my friends. I gratefully acknowledge their help and expertise through all stages of the building process, but I still feel satisfaction at having demonstrated that a woman can build her own house.

For reasons of lack of time or skill, there were some things that I could not do. I subcontracted the colorbond roofing to beat the weather and also employed a friend to help build the front verandah. The wiring has been done by my friend Jim the electrician and I am currently trying to get the plumber to 'finish' his work — one seems terribly at the mercy of such people; does everyone find it a slow, slow process?

My enthusiasm was sparked by a wonderful friend who was building a bluestone house in Maryborough, Victoria. I learned a lot during these times and, further encouraged by the conversations I had with other owner builders, I decided to look for some land. I moved to Ballarat in 1985 and found this block of land, 3.25 hectares (8 acres) of timbered, overgrown country only 8 minutes from the centre of the city. It charmed me. \$16,000 later (money borrowed from Ed Credit as a personal loan — expensive!) and loaded with a \$3600 water bill (mains pressure) it belonged to me.

Then started months of hard work cutting head high bracken, clearing out gullies, retrieving fence lines from under 20 years of growth, blackberries and fallen branches from the adjacent pine forest, not to mention the naturally fallen timber from my own place. The bush was magical and I was determined to try to even the balance to make up for some of the harm caused by the logging of most of this district. I tackled the bracken with brushcutter and much weariness of muscles and now am starting to reap the benefits as many native plants are reappearing and gaining strength.

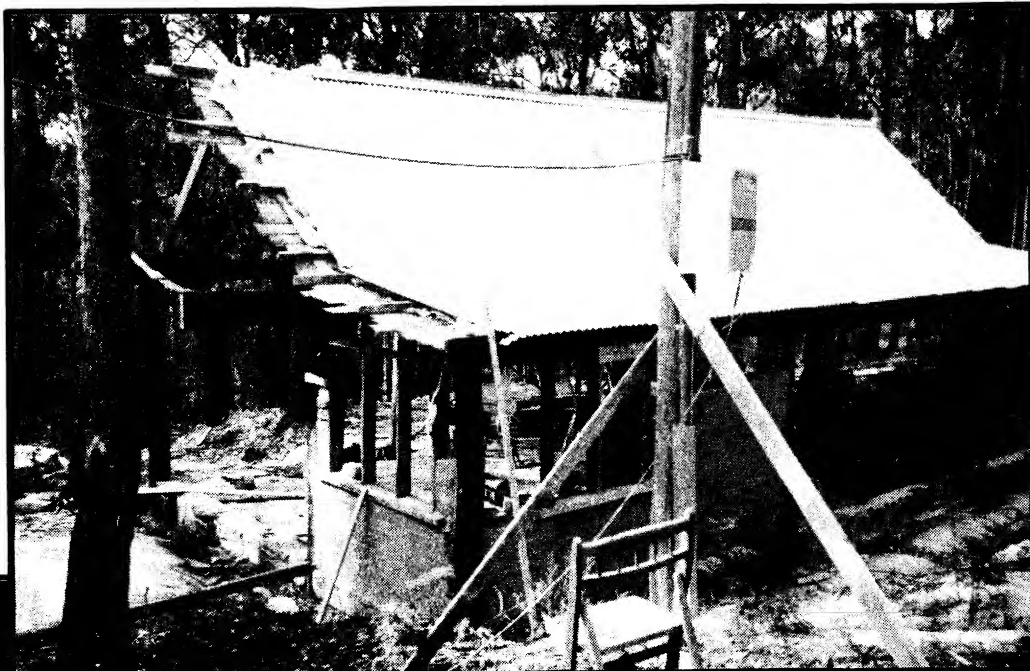
Now it was time to start building. In May 1986 the footings were poured. I then qualified for and received some funding from the First Home Owners Scheme. My lovely friend Brendan Dwyer, a stalwart of mudbrick building, supervised the standing of 12 bush poles, braving the elements and persevering with the amateur helpers gathered for this monumental moment. What terrific neighbours I have who will volunteer to help at times like this! Next Brendan, my dad and I put into place 25 x 5 cm (10 x 2 in) hardwood and 30 x 7.5 cm (12 x 3 in) oregon header beams, coach bolted and notched into the poles. The 'eye' of an experienced builder is a wonderful tool.

My scariest moment occurred with the raising of the ridge beam: balancing on beams placed at right angles to the header beams and raising the ridge to its height — 10 miles above the ground it seemed. Every breath of wind I felt would topple both me and the ridge beam and send us crashing to the ground. Sheer determination locked my arms and forbade me to give up. Success! Thanks Michael for your confidence, though I suspect you relished the task as little as I did.

All my timber was second hand — the oregon being lovely 100 year old timber from Geelong. It was browned and mostly painted thus I tackled it with an electric plane and ripped 30 x 7.5 cm (12 x 3 in) pieces down the centre to make 15 x 7.5 cm (6 x 3 in) rafters. All the timber I painted immediately with a linseed oil based mix before construction. My maths came in handy for the raising of the rafters, plus a few hints from a 'chippy' at school — thanks Jeff. Angles turned out OK and by the time they were all done the 10 cm (4 in) nails seemed easy to drive in! With brackets to the headers (on top and out of sight) all was secure. I had more volunteer help here — thanks Rod and Maureen.

I used oregon lining from a local timber yard, oiled then put into place, an insulation roll in the roof (gable, 45° pitch),

It was a memorable experience raising the ridge beam — I was sure every breath of wind would send both the beam and me down, but we survived and in no time had the insulation and colourbond roofing in place.



The rafters were made from beautiful second hand oregon that was 100 years old, and the lining from the same timber but of more recent vintage. All were finished off immediately with a linseed oil based mix.

Nearly to the lock up stage, and it is wonderful to look at what we have achieved although I know there is still a lot to do.



7.5 x 4 cm (3 x 1½ in) battens and a mint green coloured colorbond to finish off: Jack and Peter earned their money this day, for sure! One problem was that quite some time had elapsed since the poles and beams had been raised and although very securely braced the construction still had moved and things shifted somewhat out of square. A major restricting factor which caused quite a few similar delays was that I was trying to pay as I went, building on my wage. Therefore delays occurred while I saved enough money to continue to the next stage — I don't recommend doing it this way.

I constructed a caustic bath out of plastic and some old logs and stripped my back door, bathroom door and some cedar windows which I had recently acquired in a demolition yard. I had collected most of my windows and doors over two years prior to starting. These were relatively easy to do provided I didn't forget and leave them in too long! Very important to soak out the caustic and then neutralise the timber — vinegar works. These frames eventually became secured into the south west end of the home — some fixed, some opening.

What a great day when the first bricks when in, especially since I'd laboured so long and hard over the footings — bluestone spalls from Miners' Rest painstakingly cut by my dad and his mate. They were delivered, twice the size I had ordered. I then found new 'artistic' talents, spending weeks fitting together the bluestone jigsaw puzzle — random shapes developing into the first parts of my walls. Thanks Colleen and Cora for the times you gave me a hand and for your encouraging words. It looked great! The mud bricks started to go in just prior to Christmas 1987 and my family celebrated Christmas Day here surrounded by one mud brick corner and black plastic on 3 sides. A 5 litre (1 gal) can provided a much needed fire.

My big windows I had stripped locally — they were too

large for me to tackle — and what a day when the front door surround went in, after 4 years of moving it from storehouse to storehouse, terrified it would come to grief. It is so securely in place now that a bomb wouldn't budge it — good old angle iron and muscle power! It took 4 of us to manoeuvre the beast into place but I'm glad I kept it — it is wonderful. The oregon framing above it was done by my friend Peter (thanks Peter) and it only cost \$135 for the glass people to glass in both ends — not worth the risk to do it yourself, and more expensive!

I am now at lockup stage and have completed ¾ of the flooring — some second-hand bricks, some slate on concrete, some mudbrick mixed grassroots style (in a trailer), some spare mudbricks laid down flat — these were extremely solid and secure and were ready to walk on within hours, compared with the solid 'mixed mud' section. I will try sealing these with Estapol type compound as recommended, but will use a cheaper alternative, Glister — available from Haymes stores.

Some walls need rendering — those exposed somewhat before the barge boards went on. I am using Bondcrete internally and will try a new mud brick sealer, Grimes, now available via some hardware stores. I am told it has an advantage over Bondcrete in that it 'breathes' and prevents sloughing off.

All in all I love my place. I could rave on forever about it. The plan is open with only the bathroom/laundry enclosed; old pine weatherboards and flooring line the stud walls and between the bath and kitchen stove (Rayburn slow combustion) will be a bluestone wall — awaiting completion until the plumber is finished. My tap fittings are mainly old, collected from a demolition yard to match the old pedestal wash basin, claw footed bath and old ceramic laundry trough. I am still desperately short of money, but we are in and should be fully serviced before too long. I know all the effort and expense have been worthwhile, as I look around at My Place.



It was hard work to safely store all the stained glass until it was needed, and even harder work to manoeuvre it into position, but the final effect was well worth it.

CONSERVING OUR RICH HERITAGE

High in the New England Ranges is an old sawmill, one of Australia's largest hardwood mills until it ceased operation in the early 1980's. Now the old mill has a new lease of life and a much more environmentally sympathetic role in the life of the local community. Instead of destroying our forest heritage, its new owners wish to conserve it for the enjoyment of others.

Riamukka Mill Resort is the dream of Caroline Kirk and Richard Friar, who saw the mill's potential for development as a peaceful retreat for those who need to escape for a short time from the noise and pressures of city life. With the help of family and friends, the buildings used to house mill employees have been converted into basic, comfortable accommodation for guests, and the mill itself has become a vast walk-through aviary and museum where much of the old machinery is still on view. With limited money, a lot of hard work and generous support from businesses in nearby Walcha, the resort is now able to offer guests a wide range of farm related activities. As members of WIRES, Richard and Caroline often have young or injured native animals in their care, and efforts are made to provide a suitable habitat for other wildlife on the 13 hectare (32 acre) property.

The main emphasis at the resort is on developing and promoting interest in Aboriginal arts and culture. Aboriginal artists work, teach and exhibit their art at Riamukka, and there are regular workshops on Aboriginal arts, crafts, music, drama and dance in the Aboriginal Creative Arts Centre, with resident tutors who are descended from tribes in the New England area. This is a non-profit organisation whose aim is to offer all Australians an insight into Aboriginal culture and the special skills and knowledge available to be shared in mutual creativity.

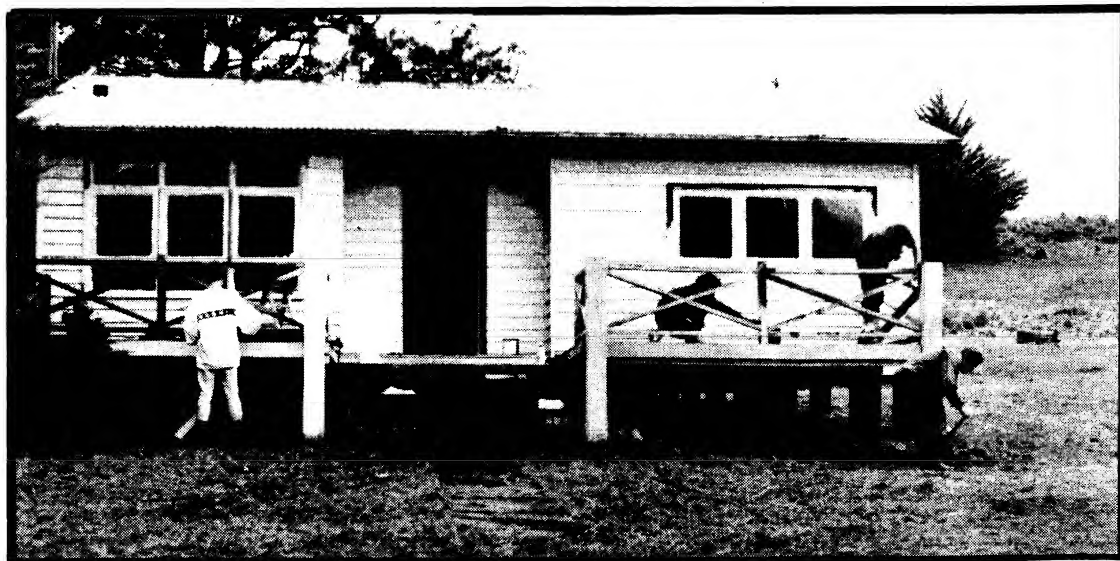
As well as the Cultural Centre, Riamukka can provide nature treks through local bushland with an Aboriginal guide, offering a different perspective to the bush and an insight into that affinity with the land. The area has spectacular scenery and an abundance of native flora and fauna, and contains Aboriginal sites rarely visited by or even known to local



Caroline's little daughter Eloise with an orphan joey. When it is old enough this little marsupial will be reintroduced to the bush.

people. With the support of the local community and assistance from government and Aboriginal organisations, this venture has developed as a response to the need for a common ground and more understanding between the races that share this land.

For more information on the work of the Aboriginal Creative Arts Centre, contact Richard and Caroline at Riamukka Mill Resort, Old Walcha Rd, Nowendoc 2354. Ph: 067-770-919.



Hard at work renovating one of the places that were originally erected to house mill staff. We have had to learn about plumbing, electricals and painting as our limited budget just wouldn't stretch to paying professionals.

COMFORTABLE COTTON

by Jose Robinson, Wild Cattle Island, Qld.

Cotton would be the most widely used fabric in the world. Classed as a cellulose fibre because it is derived from plant material, it has endless uses because of its good wearing qualities and its moderate cost. Synthetics can never replace the comfort of cotton in clothing. In warmer climates like ours synthetic fabrics are mostly too hot for wearing apparel and tend to make the wearer perspire. Major advantages of cotton are its ability to absorb moisture such as perspiration, and its strength — it is not weakened by moisture, can be washed in hot water using strong soaps and ironed hot. Cotton is a most versatile fabric, used for heavy-duty work clothing, for safety and the ultimate in comfort, as well as for the most delicate baby clothing, as synthetics often irritate babies' tender skin.

Because cotton has been around for so long, we tend to think of it as 'old hat' and take it for granted — the cool comfort and friendly feel of cotton sheets and towels are familiar to all of us. Because we know cotton so well and see it so often, we tend to forget how important it is in our lives.

GROWING COTTON

The cotton plant grows well wherever long seasons of hot weather prevail. Here in Australia we grow a considerable quantity of cotton, though the leading producers are USA, mainland China, southern USSR and India, where it has been cultivated for over 2000 years. Some long staple cotton is also grown in Egypt, Peru and Brazil. Apart from commercial production, cotton is fun to grow in a small way, just for your own use. Here in our warm central Queensland coastal climate it thrives readily — most of the year I have at least a few plants growing amongst the vegetables. This means there are always boxes of cotton balls at the ready for multi-purpose uses.

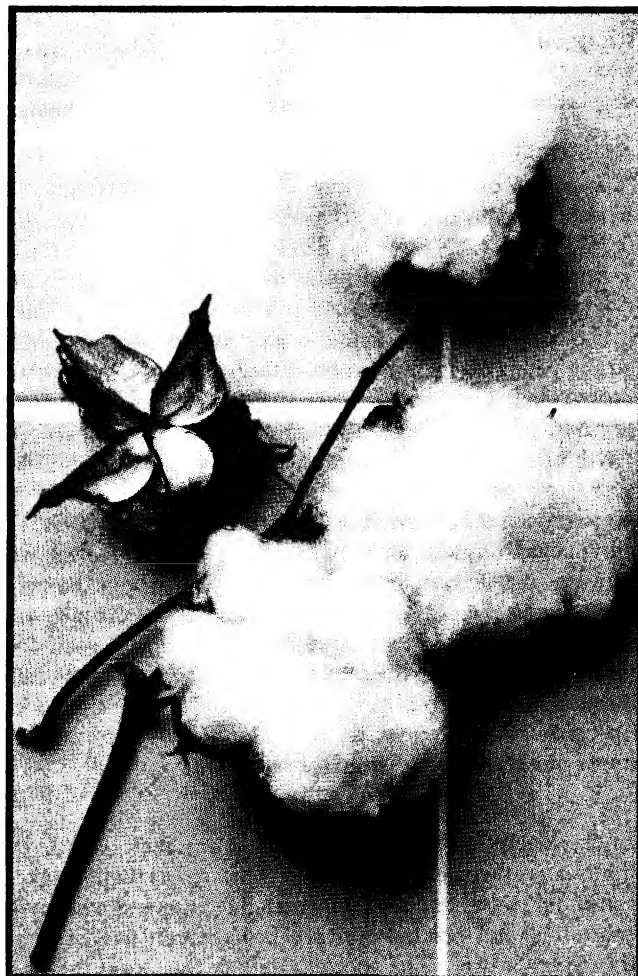
Cotton grows on bushes about 90 cm to 120 cm (3-4 ft) high. When the blossom falls off after blooming, the seed pod or boll begins to grow. Inside the boll are seeds from which the fibres develop. When the boll is ripe, it splits open and fine white cotton hairs are ready to be picked. They are still firmly attached to the seeds, which have to be removed and the cotton cleaned before it can be used.

To remove the seeds from home grown ripe cotton bolls easily, we place them over a bowl of steaming hot water — this helps considerably to release them. We then hand card or tease the raw cotton to make it ready for spinning into yarn on our spinning wheels.

USING THE COTTON

Some of the cotton I spin into yarn, although I do find cotton spinning can be a bit frustrating if the staples are short. I separate the different length staples until I have a heap worth spinning. The slub (knobby thread) which I am able to produce is suitable for knitting, crochet and weaving. One hint which helps a bit when spinning cotton is to place it over some boiling water for a few seconds, but don't let the cotton get wet with the steam.

A further use for cotton, if you can grow sufficient, is padding for patchwork quilts. It can be teased out or carded

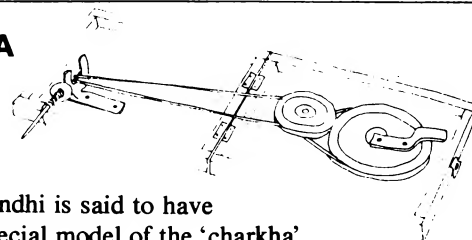


Ripe cotton bolls split open to reveal the fluffy white fibres, still firmly attached to the seeds from which they grow.

and smoothed and laid out evenly over the backing fabric.

Once you have spun the cotton into yarn, you can: crochet hand towels, face washers, cool summer sleeveless tops, shoulder bags (dyed different colours), lacy cafe curtains for the kitchen; knit animal toys; and the list is limited only by your imagination.

THE CHARKHA



Mahatma Gandhi is said to have designed a special model of the 'charkha' for spinning cotton and recommended that everyone spend some time each day spinning this fibre. The charkha is a type of spinning wheel used for twisting very fine, usually cotton, thread. Thought to have been developed in India, it is very small and can be disassembled and kept in a carrying case the size of a conventional briefcase.

COTTONING ON

by Jess Begg and Glenda McKie, Melbourne, Vic.

Cotton is known to most beginner crafts people as a good, strong thread to use for experimenting with various patterns — such as knitting, crochet and weaving. However, it is a versatile vegetable fibre which has been used for over 5000 years.

COTTON GROWING

The cotton plant is a variety of hibiscus, belonging to the Malvaceae family of plants. It grows to a height of approximately 0.75-1.25 m (2½-4 ft) and bears a pretty white to creamy yellow flower, which later turns to red after self pollination. Cotton is planted as a seed and cultivated each year although it is not by nature an annual plant. This is done to ensure strong young plants and to obtain the best yields. Being a tap-rooted plant it prefers a soil permitting root growth to a depth of 1.5 m (5 ft). The soil can be light sandy loam, heavy clay, or anything in between. Planting usually takes place during spring and the flower appears about mid-December — a period of some 80 days. The flowering period can extend for another 60 days. Immediately underneath the flower is a small pod called a cotton boll. After pollination, the petal withers and the boll gradually grows to about the size of a small hen egg. The fibre actually grows from the seed coat inside the boll. When the seed and fibre within the boll is fully developed, the boll splits into four or five sections, or locks, exposing the seed cotton to the sun and air. Very fine white fibres cover the seed within the open boll.

HANDSPINNING COTTON

Look closely at some raw cotton and you will see that the fibres are rather short and smooth. This means that to make a cotton thread which is strong enough for use and which will not fluff up and look messy, it will be necessary to spin with a good deal of twist. The shorter the fibre the closer the twist should be to hold the fibres together and to prevent them from slipping past each other.

So, if you are using a single-band wheel, loosen the brake-band to minimum tension so that you will have good control of the twist. With a double-band wheel, first make sure that the drive-band is not too tight. You should be able to loosen off your tension to the stage that the bobbin and flyer do not rotate. If you have two grooves on your pulley select the smaller diameter one. This in itself will give you more twist for the same amount of treadling. Now gradually tighten the tension until the flyer begins to move.

Break off a small amount of cotton and spin it (or tie it) to your leader yarn, allowing the join to move through onto the bobbin. Supposing you are right-handed, hold the cotton in your left hand (fibre hand) with the fingertips bunched together at the same length and the thumb on top. Your hand will be curved into a nest shape. From this position you can either let the cotton flow through your fingertips, or you can hold it back with the right amount of control.

With your other hand (yarn hand) hold onto the spun yarn about 20 cm (8 in) from the orifice and treadle a few times, still holding on. Now move the yarn hand up close to the orifice and let the stored spin run back into the fibre. At the same time move your fibre hand back, allowing some cotton

to slip through your fingers. You should have now about 25 or 30 cm (10 or 12 in) of spun cotton, complete with lumps. With your yarn hand still holding on near the orifice, give the yarn a slight pull with the fibre hand. This should thin out the thick places and also force the fibres closer together for strength. Now treadle the yarn onto the bobbin, making sure as it goes in that it has enough twist. Grasp the yarn 20 cm (8 in) back, store up some more twist, and repeat. This is one kind of spinning which requires quite fast treadling. The rather textured yarn spun from raw cotton is ideal for knitting into summer tops, but as long unspun slubs tend to be weak and fluffy do try to pull them out as you spin. Combed cotton will spin into a more even thread suitable for lace knitting.

Reprinted from *Newsletter No. 303*, December 1983, Handweavers and Spinners Guild of Victoria Inc, 3 Blackwood St, North Melbourne 3051.

COTTON SPINNING

Plant fibres (including cotton) have a different cellular structure to that of animal fibres. Because of this it is better for general purposes to spin cotton in the opposite direction to that of wool, i.e. spin cotton 'S' twist (anti-clockwise) with a high degree of twist, ply 'Z' twist (clockwise). I have tried this method and have found cotton 'grips' better when spinning and therefore it is quicker and more relaxing.

Reprinted from *Newsletter No. 324*, November 1985, Handweavers and Spinners Guild of Victoria Inc, 3 Blackwood St, North Melbourne 3051.

TOXIC PAINTS

Although there is little local information on problems caused by chemicals in paints, the situation here in Australia is likely to be similar to that existing in Europe and USA, where some alarming figures have recently come to light. Several paint manufacturers in USA have been sued for damages over problems allegedly caused by glycol ether, a substance commonly used in water-based paints and lacquers. Researchers at the Yale School of Medicine have also found infertility problems and high rates of anaemia among shipyard painters. In Britain, dozens of chemical companies are facing lawsuits brought by stricken painters and their families, while in Denmark the government has granted nearly 1000 applications for invalid pensions from painters incapacitated through their work. Many more applications are pending.

Paints contain monomers, solvents, and preservatives which are released during the drying process, even when no smell is apparent. These toxic substances produce eye and skin irritation in painters and others who come in contact with them, and inhalation of the fumes causes further damage. Many allergy problems are triggered or aggravated by exposure to paint fumes, even from 'safer' water-based paints. The crippling illness chronic fatigue syndrome has been linked to high levels of toxins in the blood of sufferers — up to 10 times the average level found in the US. Much more detailed research needs to be done into the extent of this problem in Australia.

A LISTING OF NATURAL THERAPIES

by Margaret Oag, Oakville, NSW.

It's obvious from the Feedback pages that there are lots of people who are interested in exploring the wide range of alternative approaches to health and healing that are currently available, but who are not sure where to start. To help out, I've compiled a list of various natural therapies, with brief details of what each one involves — how it is practised and for what purpose. Of course, there are lots of others that I haven't included, either because I don't know enough about them or because they may not be so readily available. Remember that this is just a rough guide, not a complete description of each therapy.

Acupressure *see* Shiatsu.

Acupuncture Treatment in which pain and other problems are alleviated by inserting and manipulating needles at chosen body points ('Chi flows'). It literally means puncture with a needle (acus).

Alexander Technique A method of training posture in which mind and body are harmonised. Stresses the correct relationship of head, neck and back for effective function.

Anthroposophical Medicine An extension of thinking and practice in medicine based on the work and teaching of Rudolph Steiner.

Aromatherapy Body and face massage using essential oils extracted from plants which can prevent infection and improve general health.

Aura Analysis Using the various colours radiating through and surrounding the physical body to analyse imbalances in body energy.

Auto-acupressure Applying pressure yourself, by using the thumbs, to particular points in your body.

Autogenics Developed by a German psychiatrist, J H Schultz, this uses visualisation exercises to help bring about normal healthy processes in the body.

Bach Flower Remedies A system of herbal and flower extracts devised by Edward Bach (1880-1936) to treat emotional states of imbalance or ill health.

Bates Vision Improvement Training Improving eyesight by simple methods such as relaxing, palming and sunning over closed eyes, blinking often and splashing eyes with warm and cool water.

Biochemics A system of treatment with chemical salts originating with a Dr Schuessler who associated every form of illness with disturbances of the balance of one or several of the body's inorganic salts.

Bioenergetics Practices based on the ideas of Wilhelm Reich, aiming to improve the flow of bodily energy by decreasing tension and integrating mind and body through understanding of the body and the ways it functions.

Biofeedback A method by which the body's functions can be monitored using special equipment and personal observation so a person receives information to gain control over their physical responses.

Chiropractic A manipulative therapy designed to keep the spinal column and nervous system in good health without the use of surgery or drugs.

Chromotherapy *see* Colour Therapy.

Colon Irrigation The washing out of the bowel with water

so waste material and toxins are carried away.

Colour Therapy The use of colour — coloured lights, food, clothing, images — to produce healing.

Crystal Healing The use of natural quartz crystals to focus healing energy.

Dianetics The study and science of the mind; the forerunner of Scientology.

Dowsing *see* Radiesthesia.

Encounter Groups Originating in America in the 1950s, they were concerned with fostering interpersonal relationships.

Fasting Getting rid of waste matter and toxins by stopping food and drinking only water or selected juices for a specified period.

Feldenkrais Non-strenuous exercising — a remedial massage therapy using gentle movements designed by Moshe Feldenkrais, practised singly or in groups.

Flotation Therapy A sensory isolation system which involves immersing the body in a water tank full of a strong saline solution and relaxation without light or sound.

Flower Healing Using the flowers' non-material energies or radiations. The flowers are used live, unlike in the Bach remedies.

Gestalt Therapy Working with the 'whole' (gestalt) person. Fulfilment is gained by a person accepting their disguises as real feelings, through physical expression of feelings and dreams in art and movement.

Herbal Medicine An ancient worldwide system of medicine using plants to prevent and cure disease.

Homoeopathy A means of healing based on the idea that minute doses of agents which produce certain signs and symptoms in health also cure these in disease.

Hydrotherapy The external or internal use of water in various states to heal certain ailments and illnesses.

Hypnotherapy The bringing of someone into a trance-like state where they are more open to positive suggestions for self improvement and can securely explore past experiences.

Iridology This involves using an enlarged photo of the iris to examine the cellular structure of the eye so as to determine a person's state of health by relating appearance of the iris to particular parts of the body.

Macrobiotics A philosophy of life (from Japan) that involves taking a very wide (macro) view of life (biotic), integrating traditional diet, spirituality, science, cosmology, politics and religion.

Massage A way of treating a person by stroking, pressing, tapping, kneading and rubbing various parts of the body. There are many styles. *See* Shiatsu, Reflexology, Rolfing.

Meditation Learning to free the mind from the known, to develop insight and peace, practise relaxation and improve health and wellbeing.

Megavitamin Therapy *see* Orthomolecular Medicine (called this since the 1960s).

Moxibustion Burning selected herbs close to the skin, a treatment used in conjunction with acupuncture.

Naturopathy A general term covering 'natural' techniques in healing, such as herbalism, diet therapy, deep massage.

The person rather than the symptom is treated and the aim is to stimulate the life energy and promote self-healing.

Negative Ion Therapy The use of negatively charged air particles to prevent and cure disease.

Neuro-linguistic Programming (NLP) Communication techniques developed in the 1970s by Richard Bandler and John Grindler so that a person's needs are quickly seen and the subject can be taught how to deal with them using behaviour patterns based on the five senses commonly used.

Orgone Therapy The use of orgone (a form of energy that surrounds us all) to cure certain illnesses. *See Bioenergetics.*

Orthomolecular Medicine Balancing the body's systems and needs through the use of controlled diet and vitamin therapy.

Osteopathy The manipulation of body and spine to remedy disease by removing blockages to nerve impulses and blood supply and restoring the structural balance.

Past Life Therapy A way of solving problems and phobias of today by going back to the previous lives from which they have come.

Pattern Therapy A family of therapies based on the assumption that patterns or shapes have a critical effect on our lives and can help cure disease.

Polarity Balancing The use of touch, simple exercises and diet to remove blockages of energy or build up energy if deficient in various parts of the body.

Psionic Medicine A system of medicine devised by an English surgeon, Dr George Laurence, that combines homoeopathy, radiesthesia and orthodox medicine.

Psychic Surgery A kind of surgery where psychic energy allows a person's hands to enter another's body painlessly and get rid of diseased tissue or blockages.

Radiesthesia The use of dowsing or divining with a pendulum to diagnose disease and select remedies.

Radionics A therapy using radiesthesia with simple instruments to help diagnose disease in animals, plants and humans and then treat this disease at a distance without the presence of the patient.

Rebirthing Continuous, conscious deep breathing so the body is flooded with oxygen and a person can reach deep unconscious levels of being and get rid of toxicities from past experiences.

Reflexology An ancient Chinese and Indian diagnostic and therapeutic system in which the soles of the feet and sometimes the palms of the hands are massaged deeply to correspond with certain organs or parts of the body.

Reichian Therapy A form of body therapy which aims to balance the body's energy. *See Bioenergetics.*

Reiki A Japanese healing system in which a practitioner places hands on the receiver in special positions. The hands are left there until the energy is absorbed (i.e. when the hands are cool and the vibrations cease).

Rolfing A body therapy, more accurately called structural integration, invented by an American, Ida Rolf. It is a kind of deep massage which manipulates the tissues of the body to break down incorrect connections in mind, body and emotions.

Shiatsu This is a form of oriental massage and pressure, by thumbs, fingers, palms, elbows and knees, which aims to stimulate acupuncture points and meridians and correct imbalances.

Sound Therapy The use of sound waves to heal emotional and physical problems.

Spiritual Healing This includes various methods of healing by using a higher spiritual source, channelled through the healer.

Subliminal Therapy Using tapes with background sound/music and audible or inaudible spoken suggestions aiming to change certain behaviours.

Tai-chi Ch'uan An ancient Chinese system of exercise, continuous and flowing, for overall health and harmony.

Touch For Health A gentle method of improving body balance and getting rid of tension, using acupuncture, touch, massage, muscle testing and balancing.

Visualisation Using imagination to achieve improvement in health and attitude by harnessing the power of the mind for positive ends.

Yoga From the Sanscrit word for 'union' or 'one-ness'. It is a self-help system of care combining exercises, breathing and meditation. Types of yoga include:

- Hatha — integrating body and mind using asanas or postures.
- Raja — a meditation method focusing on god consciousness.
- Oki — oriental exercises, martial arts, Zen meditation, dancing and physical games done in pairs or groups are all part of this.

For further information on any of these therapies, or details of practitioners in your area, consult the yellow pages of the telephone directory or enquire at your local community health centre. A useful resource for therapies and practitioners is the *Australian Preventative Health Care Directory*, available for \$3.50 from PO Box 304, Belgrave 3160.

SUN-HARDENED SEEDLINGS IN 125mm TUBES FOR YEAR ROUND PLANTING

Please Tick

No.

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| <input type="checkbox"/> *Tagasaste | _____ |
| <input type="checkbox"/> *Leucaena (Peru & K8) | _____ |
| <input type="checkbox"/> *Honey Locust (Thorny & Thornless) | _____ |
| <input type="checkbox"/> *Hybrid Willows | _____ |
| <input type="checkbox"/> Silky Oak | _____ |
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| <input type="checkbox"/> Casuarina Cunningham | _____ |
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| <input type="checkbox"/> Acacia Pendula | _____ |

*Information available on request.

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CITY LIFE IS WHAT YOU MAKE IT

by Sharon Brown, Greenwich, NSW.



Our five year old daughter and friend in our productive and pleasant city garden.

We too dream of a few acres, with a comfortable home, orchards, extensive permaculture gardens, animals, forest walks, clear streams . . . but like many others whose dreams have a similar theme, right now we are choosing to live in one of Australia's major cities. All of us have our own reasons — family or other commitments, career ambitions or a need to have access to gathering more monetary resources. My reasons are centred on learning, wanting to be where I could find the teachers and courses that assisted me along my chosen path, so for the past five years I have been living in Greenwich, 10 km (6 miles) from the Sydney GPO.

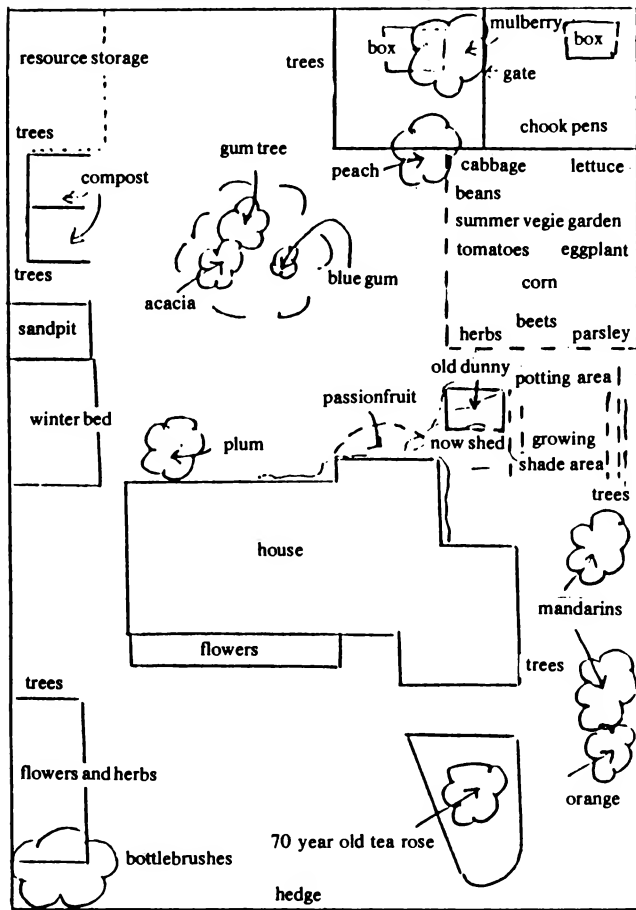
The little wooden house we are renting is reasonably priced (by Sydney standards), mainly because the house was in desperate need of some TLC when we moved in. The garden was in a disastrous state, 70 percent being covered in rubbish, car parts, empty bottles, and all underneath shoulder high weeds. Four small truckloads went to the tip and eventually we found the soil. Unfortunately it was putrid and full of onion weed so I shovelled and wheelbarrowed down to the subsoil, an area about 3 x 6 m (10 x 20 ft), removing the soil to another area of the garden where there was no soil whatsoever and weeds didn't matter so much. I then purchased 4 tonnes of 'organic mixture' to use as a base for my vegetable garden. To my surprise and annoyance, the 'organic mixture' was almost devoid of life-supporting qualities (although it was clean and weed free) so I began building it up with massive amounts of manure, compost, seaweed meal and occasional dolomite. (There are many riding schools within a half hour drive from us and horse manure is in plentiful supply. They are glad to be relieved of some!) The first crop I

planted died within a week of planting and it eventually took a year to get the soil to a quality I could feel OK about.

Since then another two garden beds have been created, one on the other side of the garden for winter sun, as the suburban fence casts a 2 m (6 ft) shadow on the original vegetable garden in winter, and a soil-less garden against the house (see diagram). Half of the backyard is a rock shelf with only 25 mm (1 in) of soil supporting grass so this gave us an opportunity to try the soil-less way of gardening in this area. The bed is only 1.2 m (4 ft) across and semi-circular, made of layers of lucerne hay, newspaper, manure and compost. A passionfruit vine was planted there to cool the rear of the house and to create a fast greening effect. It went berserk! I would recommend this method of gardening to anyone in a limited space or with little soil, but you must remember to water often.

Our suburban garden is large enough to accommodate a few chooks. At present we have six, two each of Rhode Island Reds, Black Australorps and White Leghorns. They give more than enough lovely fresh eggs as well as pure enjoyment. They have a fully enclosed pen at the rear of the yard which was made totally from scrounged and found materials, the laying box being a large packing crate. One of the Rhode Island Reds is broody and I've got her sitting on six fertile Jungle Fowl eggs given to me by a friend who manages a pheasant farm. Jungle Fowl or Red Jungle Fowl (*Galus galus*) are native to Kashmir, Nepal, India to Java. They are the 'original chicken' from which domestic fowl are descended. The hens are various combinations of brown, often being very pretty, and the roosters are brightly coloured. All the chooks

Layout of our productive suburban garden.



Below: The garden is large enough for us to keep a few fowl, so we enjoy fresh eggs as well as our own vegies, and gain a lot of pleasure from the birds' antics.

play an important role in the cycle of our garden, eating scraps, clearing the garden beds between crops and of course providing manured straw for the compost. I grow nasturtiums in abundance as a green feed for them and they wander the garden in search of delicious things to eat. The cockroach problem we used to have in our kitchen has all but disappeared since having our 'girls'!

Our house is about 70 years old and was built in the days when many folk grew their own fruit. We are lucky to have two magnificent mandarin trees and a very thorny orange tree which are all as old as the house and which drip with fruit in late winter. There is also a plum tree which is subject to fruit fly and I haven't been able to beat them yet despite much effort. A peach tree has regained its health from an aphid ridden, leaf curled mess to a lush green tree, but alas the fruit doesn't grow to maturity before dropping (any ideas?). Two mulberry trees have self sown, the one in the chook run has grown massive in just 2 years! As well as using the leaves for my 5 year old's pet silkworms, we have mulberry pie when they're in season and the chooks have a feast, they swallow them whole!

The gardens are providing fresh food for us and one of my daily pleasures is picking a dark green salad of lettuce, spinach, beet tops, nasturtiums, comfrey and parsley. The herb garden is doing well, growing mostly herbs for the kitchen. The lemon scented gum I planted in the centre of the yard is growing inches a day! Many a cup of tea has a lemon eucalypt undertone. I like to grow vegetables and flowers all higgledy piggledy in together and to leave many vegies to flower as a treat for the bees — I like the way they look too. Around the chook pen and compost heaps plants have been encouraged to grow wild to help support the high lizard population, for balance with the more cultivated areas and of course it's nice to have an 'overgrown' effect rather than fences. There are many birds that seem to find our garden safe



and enjoyable. I wonder if having chickens helps? Some flowering natives have been planted and I leave the birds a constant supply of water.

There are many unpleasant aspects of city living, the traffic and frantic pace being two of the worst. But a grassroots lifestyle is an attitude as well as the more practical side and we have found that we can maintain a simple and slower paced life by choosing it, although we have to re-affirm this choice often. Richard works as a postman and is lucky enough to have our area as his run. The wages don't leave us any to spare but we have plenty of time to be together as a family and many afternoons are spent working in the garden or enjoying some of the lovely bushland pockets that surround us. This time frame also supports any activities I wish to do, which includes involvement with a homebirth group and my work as a childbirth educator and healer. Mind you, I'm not doing too much of the healing as we have a six month old daughter and a five year old and parenting is totally involving for me! This shared attitude towards work is certainly unusual here in the city but I'm not certain that it's usual anywhere.

There are many facilities and resources that support our lifestyle close at hand here in Sydney: libraries, op shops, playgrounds, swimming pools, diverse and creative groups of people, gatherings, educational facilities, reverse garbage, not to mention council cleanup day when people around us throw out many useful items! Local markets are good places to sell homemade and gathered goodies and to pick up a bargain. We have six or so local markets to choose from. They are a good day out and a great place for socialising as we're bound to bump into an old friend or two.

I'm not saying city living is totally wonderful: we've been lucky finding this house; we're too often overwhelmed at the traffic and noise (especially lawnmowers, ugh!) and at the absurd wealth and social paranoia around us, but happiness can be found in your own backyard no matter where it is. Support and love can be shared anywhere and any time.

MORE ON RAISING CHICKENS

by G Hall, Avenel, Vic.

Following my earlier article ('Chickens For The Table', GR 71 p. 57), I thought a little more information would be helpful to anyone doing as I did. I have just picked up a batch of 12 day olds, and have found it a little harder to raise them during the summer months. Initially I found the chicks to be a little dehydrated, and corrected this by putting their beaks in water — they soon picked up. I was using a 60 watt globe, but have even found this to be a little bit hot by late afternoon and so turned it off for a couple of hours. I am now using a 25 watt light globe as it seems they don't like the light being turned off completely. It has been very hot, about 32°C (95°F) daily. It is cheaper in summer, electricity wise, but more care is needed. One must remember that they tend to exercise less unlike pullets or roosters who seem to move all the time. It might not be a bad idea to put a thermometer in the area, (I use the Fowlers bottling one) and try to keep the temperature at about 20-25°C (75-80°F). Any higher and I think they may dehydrate very quickly. I am still covering them with felt at night just before I retire, and removing it in the morning. I think it all depends on how draught proof your container is, and how insulated.

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Dear Advice Page,

Could anyone tell me why my budgies are dying — is it just the hot weather? I have lost about 7 of my 16 birds in the last 2 months out of my aviary and as I look after them well can't work out why they die. I would appreciate any information from people who have had problems losing budgies on how to prevent losing more. Hoping you can help.

**Peter Riseham
23 Burringbar St
NORTH BALGOWLAH 2093.**

We can appreciate how upsetting this must be for you but can only offer broad advice without more specific details from you. A practical step would be to talk this over with the proprietors of your local pet shop. They no doubt will have handled many budgies in their time and be more familiar with problems that commonly affect this species. They will also be close at hand should perchance another mortality occur and may be prepared to perform an autopsy to try to determine the causes.

Heat stress affects all birds but to attribute the death of almost half your flock to this sounds unlikely unless the aviary is sited in direct sun and heats up like an oven. The birds most likely are dying due to other factors, but without a lot more information on aspects like management, diet, age of birds, etc. there is little we can do other than suggest you keep a close eye on the remaining flock and note down any changes in health or behaviour.

Observe your birds — any abnormal conduct may be the first symptom of illness. Sick birds generally eat less than normal or not at all; they may pant from time to time, sit a lot looking dejected with their feathers puffed out or carry them more closely than usual; they may change from placid to a highly strung bird, and so on. The colour and consistency of droppings usually says a lot about a bird's health. Normal droppings are black and white, the black part representing the faeces and the white part the urine, but when unwell they can become soft, viscid, pasty or watery, as well as changing colour. Diarrhoea is the result of inflammation in the intestines but it can have many causes and be the symptom of diseases of both minor and major nature.

By being aware of 'normal' health you will be in an excellent position to notice abnormal signs should they appear and if you keep a record of when, where and how it would be invaluable to a professional in aiding diagnosis. You may like to consult a vet but unless they see budgies regularly they may not be as informed or helpful as the pet shop people who specialise in cage birds. Good luck with the problem, it certainly needs a speedy solution.

Dear Question Page,

I have noticed a rather unfortunate condition in two of my Muscovy drakes. They seem to have prolapsed penises. Do you think that I should reduce the number of ducks they are mating with? I thought that perhaps they are overexerting themselves. Also, can you tell me what I should do to improve the problem.

**Sandi
CAPE YORK PENINSULA.**

The condition you have observed in your two drakes is known as penis paralysis and although not a common affliction is one that does occasionally occur. The penis of affected drakes protrudes, the muscles not having the strength to retract it, and can drag around in the dirt and mud, becoming lacerated and possibly dried out. The bird may lose condition and if preventative measures are not taken the penis may drop off and the drake die.

It is thought this condition is a genetically inherited weakness of muscles controlling the penis, so the appearance of it in a flock necessitates serious evaluation of the birds and possibly selective culling. You should not breed from drakes that may have displayed symptoms of this condition and recovered and ideally you should cull all males that are suspected of carrying genes for it.

In tropical areas ticks should be considered as a possible cause. They can cause fever and general debilitation and the condition as seen in your drakes may result. Dipping the birds in a mild insecticide would eliminate the ticks if there are any. It would also be wise to deworm your birds as an infestation, however mild, would not help their general condition.

Look carefully too at the way your birds are kept — a lack of water in which to breed has been suggested as a contributing factor but of course it is not the sole cause. A small pond or even a children's swimming pool would be advantageous if you can organise it.

Now for the affected birds. By regularly observing the flock you should pick up early signs of this condition and prevent it developing to the stage where the organ becomes badly soiled or infected. At the first signs of the problem remove the drake and place him in an isolated pen that has clean litter and plenty of bathing water. If necessary wash the organ with a very mild disinfectant and gently manoeuvre it back into place. Improvement may show in a week or so or may take several months. As drakes affected with this condition can't be used for breeding a hasty dispatch would be the kindest solution. One last word on penis paralysis — despite what most will tell you it is not usually caused by overwork!

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SEEDS FOR STORING AND SOWING

Until now this series of articles has concentrated on buying good quality seeds for planting in your home vegetable garden. There is however another way, once your garden is established with a wide variety of plants, of acquiring seeds for planting next season and that is to save them from your own plants. Mail order catalogues are a great source of unusual and hard to find varieties, and provide an invaluable service to people living in isolated areas, but there is a special satisfaction to be gained from sowing — and harvesting — crops from seeds produced in your own garden. You know what to expect from the plants and, with a little care and attention to a few basic precautions, you can be assured of good results. It's cheaper, too!

SEED SAVING AND STORAGE

It is important when collecting seed for later replanting to ensure that it is true to type and not some strange hybrid produced by cross-pollination of different varieties that have been planted too close together. This applies particularly to the brassica (cabbage) family, whose members readily cross with each other unless separated by at least 1.6 km (1 mile)! Beetroot and silverbeet will often cross, members of the parsley family (e.g. carrot, parsnip, celery) will cross with each other or with related weeds, and pumpkins and zucchini will cross with others in the cucurbit family. To avoid such problems, it is best to remove any underdeveloped or sick plants from the crop, stagger your sowings so that different varieties of the same family will ripen at different times and cover selected flower heads (paper bags are handy for this) after hand pollinating to ensure trueness to type.

Careful selection of the plants from which to collect seed is also crucial. They must be the best examples, *not* just the first ones to run to seed or those you've overlooked when harvesting the crop. Hybrids will often not breed true to type, though you may be lucky and find one that does. Choose the plants that show favourable characteristics — early maturing, prolific cropping, slow to bolt — and save seed from more than one plant of the same variety, as this safeguards their genetic diversity and vigour. Plants that have lacked food and water will not be as fertile so their seed should be avoided. Take particular care of the plants you have marked as seed-bearers, provide them with the best possible growing conditions and stake emerging flower/seed stalks where necessary. Some will require replanting, either because they are biennials which only set seed in the second season e.g. carrot, parsnip, onion, or because you want to use the bed for another crop.

Most seeds should be left on the plant as long as possible. When pods are dry and seeds have turned to yellow or brown, carefully gather seeds for further drying. Pods or larger seeds can be spread on paper in the sun, other seedheads should be hung upside down in ventilated paper bags until seeds drop. Some seeds need special treatment. Those from the nightshade family (tomato, eggplant, capsicum), as well as cucumbers and melons, must be fermented before drying to ensure successful germination — scoop out pulp, cover with clean water and leave for several days until seeds fall to the bottom, then rinse and dry thoroughly. Sweet corn is left to ripen on

the stalk until husks become papery, dried and stored on the cob, with husks opened out to uncover the grains.

Correct storage of dried seeds is essential to maintain their viability for later planting. Most seeds can be kept for several years, although some, like parsnip and onion, will need to be collected every year. Stored seeds *must* be kept dry, preferably in airtight lightproof containers, and maintained at a fairly constant, cool temperature — a fridge is ideal. Clearly label each container with date and variety so that you know what's going back into the ground at planting time.

SOWING

Here are some suggestions for seeds suitable for planting in the next month or two.

Broad Beans

These old time favourites have large edible pods and are a reliable winter standby, a frost hardy cool weather crop. Two popular varieties are Egyptian Brown, available from Phoenix Seeds, and Leviathan Long Pod, from Eden Seeds.

Onions

The flavour of the ubiquitous onion enhances so many dishes, from stews to pasta sauces. Broersen offer Californise Red Early and Eden Seeds have odourless Plain Leaf available.

Turnips

An ancient plant used since prehistoric times, turnips are not suited to winter storage but are very easy to grow. Popular varieties are Shogoin and Purple Top White Globe, both of which are readily available from most seed firms.

Peas

These do not grow well in hot climates — they will even tolerate a little frost. Peas prefer a carefully prepared, well drained soil. Broersen offer Telephone, Melbourne Market and Greenfeast, but these cannot be sent to WA. There are however many varieties available from seed firms that can be sent to WA, including William Massey and Onward, both of which can be ordered from Phoenix Seeds.

Suppliers

Eden Seeds, MS 316, Gympie 4570. Ph: 071-865-230.

Phoenix Seeds, PO Box 9, Stanley 7331. Ph: 004-581-105.

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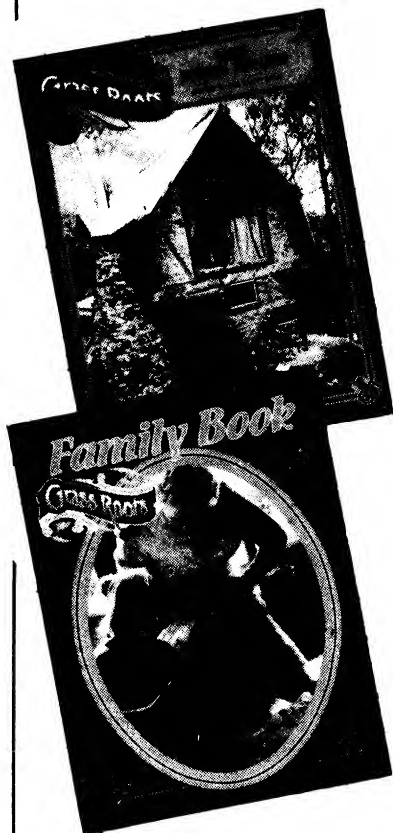
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Fireside Reader

This book is packed with stories and practical information. Stories of how winter used to be as well as plenty of up-to-date crafts and activities such as growing trees for firewood, embroidery, making jams, crosswords, knit a pair of slippers and make your own earrings.

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Planting for Fire Protection

A forest fire can be one of the most terrifying of all natural phenomena — particularly when it is threatening houses, especially the house you are living in. Many people are concerned that ornamental trees and shrubs in their gardens increase the danger to their house during a bushfire. The same fears are held for areas of native bushland in close proximity to houses.

It is true that flammable trees, shrubs, litter near a house can be dangerous, and that burning embers can start spot fires well ahead of a wildfire. Nevertheless, properly planned and managed gardens do not necessarily increase the risk to a house, but may actually assist in reducing the danger from bushfires. Although most shrubs will burn, given the right conditions, there are many species which help to minimise the risk and even reduce flame intensity.

A LOW FIRE RISK GARDEN

A treeless garden is not a bushfire retardant, because a bald patch set within trees acts as a suction cup and draws firewinds into it giving no protection from flying embers or radiant heat. A crowded garden is also unsafe — where trees and shrubs touch each other it acts as a fuse to spread the fire.

Spaced trees are safe trees. For best bushfire protection plant trees and shrubs in isolation, or in clumps which are isolated from other clumps and away from buildings and flammable fences.

A low fire risk garden should have:

- densely foliated deciduous or nonflammable evergreen trees planted to eventually give shade to the building and to catch sparks;
- trees clumped rather than continuous, and these should not touch walls or roofs;
- a clear area, possible green lawns, bare ground, or nonflammable ground cover plants surrounding buildings;
- a radiation shield about 6-10 m (20-33 ft) from buildings, constructed of privet hedge, stone, or solid metal fencing;
- appropriate species chosen, based not only on fire resistance, but also for shade, aesthetic quality and low maintenance;
- rough-barked eucalypts replaced by other trees;
- vegetable gardens and orchards located to the north and west as these assist in fire protection if well maintained;
- when siting buildings, consideration given to possible uses of existing trees for protection, as of course little protection is given by young trees for several years;
- an adequate watering and sprinkler system installed — regular watering is necessary to maintain high water content in leaves;
- stone used for edgings or paving, not railway sleepers or bush timber, both being highly inflammable. Gravel driveways are also an advantage.

Ground Cover

Keep ground free of litter. The only safe mulches are ones made of fully decomposed humus which retain moisture or pebbles. Undecayed mulches of sawdust, shredded leaves or bark chips act as kindling. PVC sheeting often used under mulches is flammable.

Lawns need not be of grass. If grass is used it must be kept

short and green. Ground covers of ivy, pelargonium, sedum or succulents such as pig face can reduce spread of grass fire and hinder spot fires from becoming established.

The only plants which are generally fire resistant are the succulents which usually have thick fleshy leaves and stems. Succulents are mainly ground cover plants less than 2 m (6 ft) in height, although some cacti may grow taller.

Vegetables

Those with broad leaves such as pumpkins, melons and tomatoes are fire retardant. Plant a wide vegetable patch on the fireward side of the house. In your location be aware of the most likely direction of fire spread.

NATIVE BUSHLAND

Houses in native bushland settings are often in a high risk situation due to the high flammability of many native species. The risk can be significantly reduced if the following principles are followed.

- Clear all ground litter and flammable scrub from beneath trees, for a distance of up to 30 m (100 ft) from buildings. Concentrate on north and west sides, and areas downslope from house.
- Beyond this, maintain native scrub in isolated clumps rather than in a continuous mass. Clumps should be concentrated on south and east sides.
- Maintain the land in an open parkland setting. This may require regular fuel reduction by burning or slashing.
- Build stone fences as radiation shields and ground cover spark catchers.
- Remove rough-barked eucalypts from around buildings and replace with smooth-barked types.
- Thin trees so that canopy is broken up into clumps. Incorporate a complete canopy break as part of a fire break.
- Clearance of all trees around a house in a forest may create a hollow in the canopy profile into which fire-laden winds may funnel. Retain sufficient canopy cover to deflect the winds over the house.
- Retain or plant low fire risk shrubs to provide a complete shield around the house to deflect radiant heat and trap sparks.
- Retain native grasses as they generally stay greener longer than introduced grasses.
- Fit steel 'leafless' guttering in situations where regular removal of leaves is difficult.

Native Vegetation Clearance

Minimum distances for clearing of ground fuel (flammable undergrowth and tree litter) around houses in native bushland areas are difficult to recommend. Factors such as the extent of protective measures taken in construction of the house, the presence of an effective radiation shield and the type and amount of ground fuel will influence the distance required.

As a general rule for a house without protective features, removal of all ground fuel for a distance of 20 m (65 ft) plus ½-1 m (1½-3 ft) per degree of slope (e.g. 10° slope = 25-30 m/65-80 ft) from a house should be adequate to protect it from flame contact and severe radiant heat levels, but not from sparks. The longer distance should be used both on the

slope below the house and in the direction of the prevailing fire weather. Some reduction of heavy ground fuel is usually necessary in forest beyond the cleared area to produce a relatively safe situation.

WINDBREAKS FOR FIRE PROTECTION

Trees planted for windbreaks can also be very effective as firebreaks provided you take a number of factors into consideration. Windbreaks should be:

- located on at least north and west sides, and extend for a minimum length of 100 m (330 ft) on each side;
- located at a distance of about 30 m (100 ft) from the house — the distance can be more specifically calculated as being between 1-3 times the full grown height of the trees, as this is the area which will be beyond the range of falling trees, and will be given protection by slowing wind speed and deflecting sparks;
- of a fire retardant species e.g. eucalypts (smooth-barked) or deciduous trees (if winter protection from winds is not needed);
- without breaks in line of trees (these allow winds to funnel through) and with gates and other openings protected by a second row of windbreak.

The use of cypress trees (not cut as a hedge) as a windbreak around a house appears to give good protection even in native forest settings, though the ground beneath them needs to be kept clear of grass and dead matter. Remember that parallel, symmetrical rows as often used along driveways create windtunnels and can draw firewinds to the house, spreading fire if the tree tops touch. Trees are best planted in rows of graded heights, small trees or shrubs followed by a

taller variety and another taller still, and then gently graded down on the opposite side. The wind descends less sharply over a graded arrangement of trees than it does over several rows of the same height.

POWER LINES, A POSSIBLE DANGER

Careful consideration needs to be given to the location of trees in relation to power lines. Fires can start by trees, falling branches or wind forcing the wires to clash together. Private property owners are responsible for ensuring tree removal from lines on their property.

Trees and ground cover vegetation can play an important role in increasing the level of fire protection of a property. Careful location and choice of species is essential in developing a low fire risk garden. Trees are most useful in deflecting strong winds, reducing radiation and in catching sparks, while appropriate green ground cover can provide a safe non-flammable area around buildings. However, trees and scrub, particularly native vegetation inappropriately placed can also increase the fire risk of a property, as can trees located too close to power lines. Remember too that the single most important factor in producing a safe garden is the removal of dead fuels and highly flammable vegetation for sufficient distance around a house.

Next issue we will conclude this article with lists of trees, shrubs and ground cover plants which are considered to have reasonable degrees of fire retardance when planted in an area of appropriate rainfall.

CURTAIN REPAIR

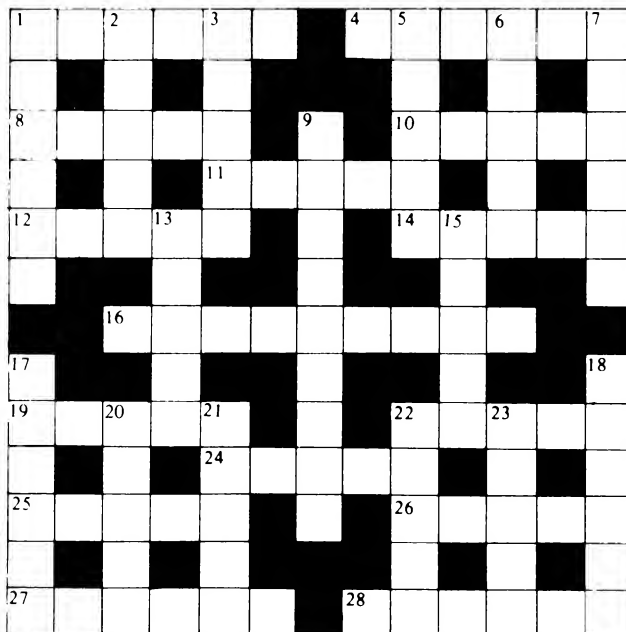
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CRYPTIC GRASSWORD

by M. Riley, Newborough, Victoria.

- Across
1. Snail-like race. (6)
 4. Concluded it was a vice. (6)
 8. Baby sits and remembers. (5)
 10. Desert position for a drink. (5)
 11. Duty-free trips, hardly. (5)
 12. Beastly homes gone off the rails. (5)
 14. A term to make calmer. (5)
 16. Habit of shore erosion. (5, 4)
 19. Race across the sea from U.K. (5)
 22. Definitely not new flat (5).
 24. Seats for property. (5)
 25. Sphere of course or fragment. (5)
 26. Seven down natives. (5)
 27. See the whole boil. (6)
 28. Mount dances around. (6)

- Down
1. Abroad in U.S.A. (6)
 2. Unforeseen nuisance brought boredom. (5)
 3. Scots used to claim expenses. (5)
 5. He knows nobody. (5)
 6. Salts, for horses of course. (5)
 7. A band on dry land. (6)
 9. Play successful hand. (4, 5).
 13. Cotton on to dances. (5)
 15. Fit and make suit. (5)
 17. Spoilt wild steers. (6)



18. Picked lock. (6)
20. Charge in spire. (5)
21. Brood way below deck. (5)
22. High lights. (5)
23. Conscious of ship's trail. (5)

Solution on page 58.

Poetry

CASTELL TREFALDWYN

*Bumptiously red the rose hips.
Gorse gold and dark green.
Brown bracken and frost blackened bramble
Shelter pockets of white from the midday sun.
The grass is wet where the sparse warmth has shone,
Clipped and neat to the base of the castle walls.*

*Grey, solid, centuries old,
The stone, hewn and matched
And mortared into place,
Has stood above the town
Guardian against threats of change.*

*Walls, towers, battlements and barricades
Built by men,
To protect men from men,
Have been dismantled by men,
To prove that through change
We progress to something that is new.*

*The hedgerows change with the seasons;
Through colours and conditions
Their changes bring a constancy,
A stable sameness with movement,
Not towards a distant novelty,
But about an eternal centre.*
Alan Morgan.

HOLDING FAST

*I touch the blackened trunk with reverent air,
Regretful of its fate, this forest giant
Crumbling in despair;
Sage among children, rampart in decay,
Solitary stalwart from another time,
Another day.
Devoid of like companions of its age and worth,
Proudly from its lofty height
Surveys the earth;
Lord of landscape, remnant of the past,
Retaining yet a place, still clinging,
Holding fast.
Did nature with resisting power possessed,
With unknown means create a force
To halt, arrest?
To leave this stark reminder of the fire's course,
A monumental offering,
That we may know remorse.*

Carole Williams.

LOVE LETTER

*There's a lot of love in the air tonight
Though I'm alone
Because I've just read your letter
And if feeling good is made of sweet memories
I'm kissing the past tenderly.*

Thomas Thackery.

BAUXITE MINE — NT

*Not content to tear open tropical nights with the glare of
electricity,
Not content to murder birds and trees and build on their mass
graves a replica city,
Not content to brainwash with booze and foreign religion dark
children of the rainbow,
Not content to dribble bitumen everywhere as they glut
themselves with bauxite,
They bulldoze now a ditch across the beach.
Lagoon is joined to ocean.*

*I am terra australis, here to sell my sweat
at a price that briefly ransoms me from hire and debt.*

Terra incognita

*he is ancient and ill at ease
ever to have been discovered
by European industry.*

B A Pascoe.

NOCTURNE

*The night is populous with quiet things,
Fluttering moths and gentle rustlings,
Soft winds that sigh and leafy whisperings,
Making a lullaby to soothe away
The memory of man's discordant day.*

*For God has writ a mighty symphony
And we alone shatter its harmony,
But now at eventide there comes to me
An echo of the music that might be
If man would learn the part that he must play.*

Jim Reed.

AUTUMN ALMANAC

*The Festival of Summer closes down
And autumn's chill breaks out
The woollen shirts and camphorated jeans.
We clap gloved hands above the burning leaves
While sluggish smoke, coiling over lawns,
Ropes up the ends of Sunday afternoons.*

*The last thrush hovers briefly, then departs
Its sentimental journey leading out
To a balmy winter palace further north.
The hammock's rolled and bagged and stored away,
Late gooseberries have fallen from their bush,
Small lanterns lit to mark the drawn-in days.*

*At night the woodstove glowing once again
Throws pantomimes of shadows on the walls,
Denoting outer limits to a warm
That envelops, so drowsily and slow.
Autumn's preparation has begun
For bitter winter's deep remorseless snow.*

Laurence Neill.

GHOST MOON

*Ghost moon rising
in the noonday heat,
Ghost moon eerily
casts no light,*

*Framed by the peaks,
hazy blue —
Wind-blasted bastions
of that timeless place,*

*Ghost moon sailing,
whispy white,
Ghost moon waiting,
for the dead of night.
Stephen Legge.*

BOORANGOORA DINGO

*Fleeting pale shape
and silent shadow
against the flickering flames
of a camper's fire.*

*Once proud predator,
a skulking scavenger
at the edge
of a darkness littered
with the witless taint of tourists.*

*Boorangoora dingo
on the fringe of freedom
succumbs to the lure
of fast food.*

*Fleeting pale shape
and silent shadow
once proud predator,
Boorangoora dog.
Trevor Harden.*

THE SOUND OF ONE HAND CLAPPING

*Whisper through the air,
A sound of nothing there,
And time in desperation,
Has nothing to do.*

*Whisper through the air,
A sound of nothing there,
I glanced yet people gazed,
At discontent.*

*So whisper, whisper, through the air,
To that sound, the sound I cannot bear,
For it is only dark when life is still,
And time has lost its only thrill.*

*So listen, listen to the air,
To that sound that isn't there,
For without your limbs you cannot climb,
And without the sun, there is no time.
Geoffrey A. Cook*



PLACE

*One day
spent
amongst ancient gums
in a valley
emptied of loggers
and the dust
from quarries
where the sun
vanishes
quicker than the sails
of a pirate ship
follow the river
to the dream
asking no questions of its journey
not caring to see
my reflection
in the water
lie still
among spilt boulders
being exhausted with my own noise
I listen to the cries
of an endangered species
calling to the last of its kind
watching the tiniest
of clouds
survive midsummer
walking late back
to the city
beneath a moon
who leaves no footprints
her voyage is
a whale song
not heard.*

Jules L Koch.

GHOSTS

*Memories of those I've loved
Those that I love still
Memories of deeds I've done
Deeds I can't undo
Memories of moments
Too special to be real
Of heartaches and of heartbreaks
At times I still can feel*

Suzy Rae Ryan.

FOR TODAY

*a child of nature
for today am I
bed of grass
to watch the clouds go by*

*sun peeps down
to brown me
pulse of life
surrounds me*

*and my heart sings
Jim Lanham.*

Kids Pages

Hi GR Kids,

It's almost too hot to write this — about our tenth super hot day in a row. Our boarding house has been like a furnace even though it's an old building several floors high with thick walls and high ceilings and usually keeps cool (it's freezing in winter!). We've been spending as much time in the pool as possible and we were even allowed to have an evening swim one night after prep last week. It must have been hot!

There are lots of new kids in my year at school and also at the boarding house, it's great but really different from last year. I'm in a smaller room, with just Mel my friend I've roomed with all along and Suzanne a new girl who is also from a farm. It's a lot of fun (occasional water fights and stuff) except we have so much home work it's unbelievable. Before Easter I'm off to an outdoor camp for a few days. It's one all the Year 9's attend, but in small groups. We go bushwalking and camping and the kids who have gone say the first day is terrible but it gets better. Mel is in my group — just as well as we might have to take turns to lean on each other when we're exhausted.

I've been home a couple of weekends and next week is half term holiday, four days at home sleeping late and eating homemade soup and lots of salads which I miss so much. Normal weekends are too short to do anything much but half term means time for some gardening or maybe some sewing and seeing my grandfather. I'm doing art as a subject this year and it's terrific and I've promised Megg I'd make a 'stained glass' window out of black card and coloured cellophane to cover a sort of window that's above our front door, so let's hope I have time to do it. Well I'd better finish — homework to do *again*.

love Suni.

Dear Sunshine and the Kids Pages,

This year we are going to the Sydney Show. My dad is taking some sheep. We are going to stay in Sydney at a motel and I want to buy a showbag and see the chickens. I am going to get a Silkie chicken for my birthday soon, called Fluffy. Bye for now.

Katie Thorne
Wagga Wagga.

Dear Kids Pages,

The other day we found a cockatoo that couldn't fly properly. Some of its tail feathers had come out. Dad put it in the boot of the car and we brought it home. It bit Mum's finger when she tried to take it out! We put it in a cage and fed it on grain and sunflower seeds. We gave it water to drink too. Our cat came and jumped up on the cage to have a look. The cocky gave a very loud screech and the cat ran away and didn't come back for a long time. After a few days we let cocky out to see what he would do. He walked away across the paddock and wanted to fight any magpies that got in his way. Dad says he will be all right now.

David Owen
Benalla.

COOKS CORNER

GRILLED BANANAS

1 banana per person
cinnamon
sunflower oil

Peel the banana and slice lengthwise. Brush with oil and sprinkle with cinnamon. Grill for 15 minutes and serve with yoghurt or ice-cream.



BOOK REVIEW

Beware, Take Care — Baggable Tales by Bruce Treloar. Hard cover, colour, 30 pages.

What is a Baggable and have you seen one? Probably not, says author Bruce Treloar, as they are very quick and nimble. Baggables have haystack like hair, raggedy clothes (a patch for every adventure) and a cloak which is used for flying. They are very small, just coming up to the knees of a six or seven year old, the age group to which the book is aimed.

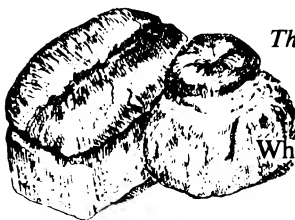
Beware, Take Care is an adventure story about Ginger and Periwinkle, two little Baggables who have been warned *not* to stray. But like most curious littlies, they didn't listen and what happens to them when they go out into the big wide world makes pages of exciting reading.

A hardcover, this book is in colour with lively, busy illustrations that are sure to intrigue beginner readers. A read-to book for that age group, older children of nine to ten should be able to read it for themselves. This is the first Baggable tale so look out for more adventures of this mischievous pair. Published and distributed by Ashton Scholastic, PO Box 579, Gosford 2250. RRP \$14.95.

ODE TO BROWN BREAD

*I never never liked brown bread
Whatever aunts and uncles said.
In vain they tried to make me see
The beastly stuff was good for me.
Though full of nourishment (said Nurse)
It looked like mud and tasted worse.*

A P Herbert



What did the father ghost say to his son?
Spook when you're spoken to!

DID YOU KNOW . . .

Some of the foods we call vegetables are really fruits. A fruit is given that name because it is the part of the plant that contains the seeds, and a common example is the tomato. When you cut one you will see the seeds neatly arranged in a circle around the middle core and if you dried some and planted them they would most likely grow into new tomato plants.

WHO LIVES WHERE?

Can you match the animal to its house?

rabbit
bat
pig
canary
mouse
fish



aviary
hole
aquarium
cave
sty
warren

AUTUMN WINDS ARE BLOWING . . .

Autumn time brings cooler days and longer nights after months and months of long hot days and, although it's sad to know your favourite season and the swimming and fun associated with it will soon be over, there are lots of interesting things you can do at this time of year.

LEAF CRAFT

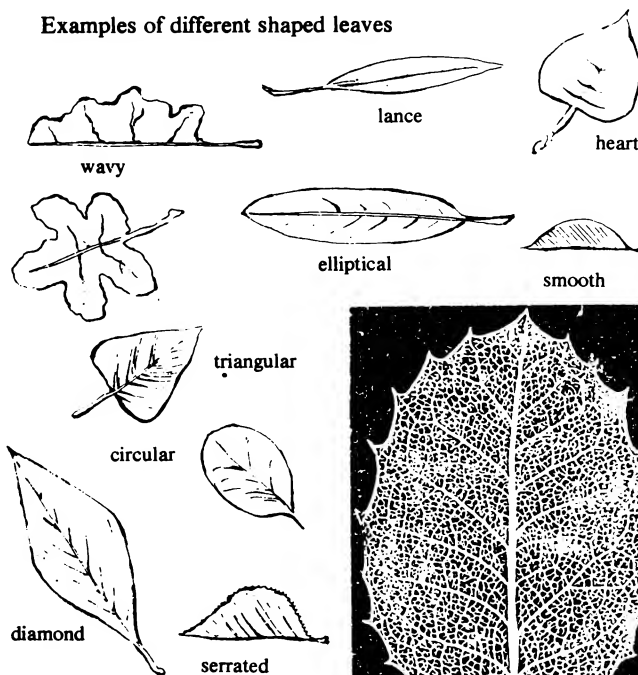
The leaves of all the introduced species of trees are dropping off now — if you haven't any growing at home or nearby, organise a trip to a park or botanical gardens. Collect leaves of different patterns and shapes. Press them between the pages of a thick book and use for collages or abstract pictures, write on them and use in place of gift cards, make rubbings of those you like the most using a black crayon and mount on black card. They make great presents. Or skeletonise a few of the leaves you like the best and mount these for gifts for later in the year.*

To make a rubbing hold a soft crayon sideways and rub across paper under which the leaves are lying. Try the leaves both right side and wrong side up to see which gives the clearest rubbing.

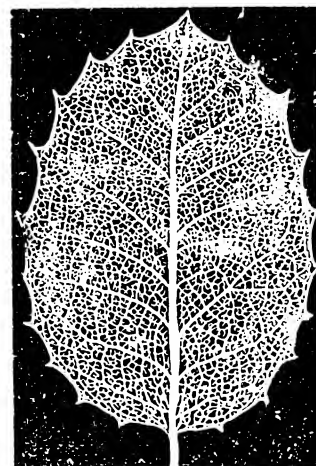
Skeleton Leaves

You must do this with an adult supervising or at least starting you off. Put a handful of washing soda plus leaves in a large saucepan, cover with water and bring to the boil. Allow to stand for 1 ½ hours. Carefully remove leaves from the mixture — a pair of kitchen tongs are perfect for this — and then gently brush away the 'flesh' or tissue with a hard toothbrush. Be extra careful here because the veins of the leaf are very delicate. When all the tissue has been removed place the leaf skeleton between two layers of absorbent paper (paper towel

Examples of different shaped leaves



A skeletonised leaf



would be fine) and place in a thick book to dry flat. You can lighten the colour of these leaves by soaking several in a solution of domestic bleach overnight but make sure you rinse them well under running water before placing between the absorbent paper. Dry in a thick book or a flower press if you have one.



FEATHER CRAFT

All the ducks and turkeys and fowl moult in autumn — that is, they lose their old worn and sunbleached feathers and grow new thick ones for the coming winter. If you have poultry or know someone who has, walk around and collect some feathers, as there are lots of things you can do with them. Of course you could give some to your father or uncles to place in the hatband of their Akubras, but here are some other ideas as well.

- Make a collage bird and use the feathers to 'clothe' it, or make one from papier mache' and glue on some feathers.

- An Indian head-dress is easy to make and would be a great present for a little brother or nephew.

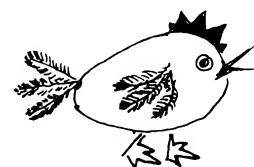
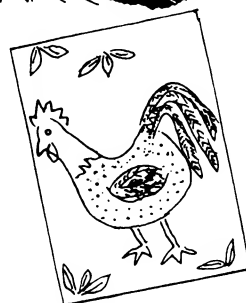
- Place some large feathers together and secure so as to form a fan.

- Imprints — roll over feathers with an art roller covered with poster paint. Place page on top and press down with your hand, you are left with an interesting imprint of the feathers.

- Eggshell chickens — glue small feathers onto them for wings and a tail, draw on eyes and glue on a cardboard beak and feet. It is best if you blow the egg first.



glue on small feathers



cardboard for beak and feet

Use material for the body of the bird and add feathers. Dried leaves and twigs could be used.

Blow the Feather

If you still have feathers left over, here is a game you can play. You will need at least two people but more divided into two teams makes it a better game.

Divide the players into two teams, and stand on either side of a large table. Place the feather in the centre and when someone says 'GO!' each team has to try and blow the feather off the opposite side to score a point. First to reach three is the winner.

While the Billy Boils...

In the past few months we have received many requests from readers for vegetarian recipes so this issue we thought While the Billy Boils should feature some ideas for easily prepared meals that don't include meat. You'll find there are endless ways to vary these basic recipes.

ALCAZAR LASAGNA

- 1 tsp olive oil
- 1 large onion, chopped
- 1 dsp garlic, crushed
- 2 granny smith apples, grated
- 2 med carrots, grated
- 1 green capsicum, finely chopped
- 10 med ripe tomatoes
- 1 dsp fresh basil, chopped
- ½ tsp fresh rosemary, chopped
- ½ cup tomato puree
- 6 slices mozzarella cheese
- 6 leaves of silverbeet, stalks removed
- 12 sheets precooked lasagna

Gently heat oil in large pot and lightly cook onion and garlic. Keeping silverbeet aside, add all other prepared vegetables, herbs and tomato puree and simmer for an hour. Now, in a large flat dish place 4 sheets of lasagna, cover with ½ of the hot sauce and place 3 leaves of uncooked silverbeet on top. Add 4 sheets of lasagna, cover with ½ of the remaining sauce, then place 3 slices of mozzarella and 3 leaves of uncooked silverbeet on top. Layer with another 4 sheets of lasagna, the rest of the sauce spread to cover all the top layer, and finally 3 slices of mozzarella. Place in oven at 180°C (350°F) and cook for 30 minutes or until the lasagna is soft and the cheese melted. Serves 6-8 people.

Kerry Garrett, Earlstoun.

VEGETABLE BURGERS

- ½ cup grated raw potato
- ½ cup grated raw carrot
- 1 cup ground cashews or almonds
- 1 chopped onion
- 1 egg (large)
- ½ cup wholemeal breadcrumbs
- ½ cup chopped tomatoes

Combine all ingredients. Shape into patties and cook 10 minutes each side. Serve hot or cold. Great on the barbecue.

Barbara Hayes, Healesville.

ONION TART

- 175 g (6 oz) shortcrust pastry
- 1 tsp butter
- 1 tsp oil
- 4 medium onions, finely chopped
- 3 eggs
- 2 cups cream
- 2 tbsp grated cheese
- 2 tbsp chopped parsley
- ½ tsp mixed herbs

Roll the pastry out flat and line a 22 cm (8 in) quiche pan. Heat the butter and oil in a pan and stir in the onions. Cover and cook over a low heat for 5 minutes. Beat the eggs, cream, herbs and cheese together, then add the onions and parsley. Pour into the pastry lined pan and bake at 190°C (375°F) for 40 minutes until golden and set.

Michael Watts, Armidale.

PROCESSOR PESTO

Traditionally, pesto is made by pounding all the ingredients together with a mortar and pestle, but modern food processors and electric blenders make the job much easier. Pesto is delicious served with all types of pasta, gnocchi, on top of minestrone or as a flavouring for soups.

- 1 tbsp olive oil
- 2 tbsp pine nuts
- 1½ cups fresh basil leaves, washed and dried
- 2 cloves garlic, peeled
- extra ½ cup olive oil
- ¼ cup freshly grated parmesan cheese
- salt and pepper to taste

Heat oil in a small heavy-based frying pan, add pine nuts and fry over medium heat, stirring until pine nuts turn golden (about two minutes). Remove from heat and set aside. Place basil leaves, garlic and pine nuts in a food processor or blender and process until pine nuts and garlic are finely chopped. With the food processor running pour the extra olive oil into the feed tube in a continuous stream and continue processing until mixture is thick and all ingredients are well combined (about 30 seconds). Pour mixture into a bowl, add parmesan cheese and mix well. Season to taste with salt and pepper and serve over hot pasta. For an alternative pasta that is a useful source of protein use Soyaroni.

Anita Crosby, Paynesville.



CURRIED PASTIES

- 6 sheets wholemeal pastry
- 1 potato, diced
- 1 small onion, chopped finely
- 1 cup pumpkin, diced
- 1 cup celery, diced
- 2 med carrots, grated
- 1 sml parsnip, grated
- 1 tbsp parsley, chopped
- 1 tsp garlic, crushed
- 2 tsp curry powder

Combine all ingredients for filling. Cut each sheet of pastry into four. Spoon filling onto one half of each square and fold over to form a triangle. Moisten edges with a little milk and firmly seal. Bake at 200°C (400°F) for 30 minutes or until pastry is golden brown. For a professional look, glaze pastry with a beaten egg before cooking.

Cynthia Williamson, Bundaberg.

The Not So Humble Pie

by Iriss Quigley, Chillingham, NSW.

It's obvious from the recipes featured in 'While the Billy Boils' that pies are popular with *Grass Roots* readers. I am an inveterate experimenter and over the years I've found many ways of presenting the ubiquitous pie. Here are just a few of them.

PIE PLATES

My pie plates range from 25 cm (10 in) Pyrex round, to a smaller 17 x 22 cm (6¾ x 8½ in) oval, and I also have two Corning squarish 17 cm (6¾ in) plates. Sometimes I use my ordinary enamel pie dish (both for pie case, and later filling) if I want a deep pie. It works the same as the others, but needs a little longer cooking. You can use any size pie: 3 or more small ones, or a medium or large one as desired. They keep well in the fridge for some days.

PIE CASES

I do not use flour. I prepare cases from plain (cooked) mashed potatoes. If you wish to make a savoury case, you can add any of the following to the mashed spuds:

- finely cut onion or chives — heaps of it;
- herbs (dried or fresh) — marjoram, thyme, lemon balm, rosemary, any of the mints, garlic (a sprinkle, or a lot for a strongly flavoured case, as you wish), cut or finely crushed;
- small amounts of mashed cooked lentils, rice, pumpkin (dry kind), fresh or cooked corn, or any grain or seed.

Mix the original cooked mashed potato with whatever you wish to add of the preceding suggestions. Very lightly butter the pie plate. Pat in the mixture to cover the plate. Bake for about 12 minutes in oven heated to about 150°C (300°F). Do not overcook! Pie should be just lightly brown on the edges. Remove from oven and set aside to cool.

Pie cases can also be made by cooking peas, dried beans of any kind, corn or pumpkin (not the soft kind) — mash up, add herbs or flavouring if wished and cook as for mashed potato case. Another easy quick pie case can be made by taking 2-3 cups of flaked bran and moistening it with a small amount of water. Mix well and press the moist mixture into the greased pie plate. Cook for 12 minutes in 150°C (300°F) oven. You can even make an 'instant' pie case by spreading one of those large round Greek pita breads (unleavened bread) over a pie plate.

FILLINGS

Basic Filling

I generally use 2-3 cups each of cooked rice (other suggestions given later) and diced or small-cut cooked vegetables. Vegetables can include carrot (sliced length-wise, steamed, then cut into small pieces), diced zucchini, pumpkin, choko, sweet potato, corn, cabbage (shredded finely), cauliflower, beans, onions, peas — the list is endless. Just steam the vegetables and cut into small pieces or dice. When cool put into basin with rice. If you use cheese in your diet, you could add some shredded (hard) cheese to the mixture.

Instead of rice, you could use 2-3 cups of well cooked grain, cooked dried beans or cooked spaghetti, macaroni, etc. I like lima beans, or lentils, split peas, cracked wheat (bulgur), corn (this mixed with a little asparagus is scrumptious) and peas.



Beat well 2-3 eggs with whatever spice or flavouring you like. I sometimes add a dessertspoon of soya bean sauce (salt-reduced). Any herb can be used. I often use rosemary (crushed finely), garlic, Chinese spice or even a little curry. Mix the beaten eggs and flavouring with the rice and vegetables and gently stir all together. A sloppy mix is not desirable. If you arrive at 'sloppiness', add either some mashed potato or one or two tablespoons of wholemeal flour. If the mixture is too thick, then add a little milk or water.

Pour the mixture into the prepared cooled pie case and spread out with a fork; sprinkle heavily with dried breadcrumbs and pat them in gently. Cook with oven at 140°C (280°F) for first 12 mins, then raise heat to around 200°C (400°F) — no more — for approx 30-40 mins. Check if ready by inserting a sharp pointed knife into the centre. The pie is cooked when the knife comes out clean.

Variations

Fish (bones removed) can be added to the basic rice and vegetable mixture, or have fish and vegetable pie only (no rice or grain in it), but still use the egg mixture. Grated cheese can be substituted for fish (2 cupfuls). Non vegetarians can use mince or finely cut up meat or poultry (can use up leftovers this way too) in the rice or other basic filling, plus vegetable mix — just a matter of substitution. A little cut up bacon gives flavour to any pie.

You will notice that I do not mention salt and pepper, or manufactured spices, although salt-reduced soya bean sauce does contain some salt. Celery, juiced or cooked can be added to the pie mix to give a slight salty flavour. If I have non-vegetarian friends joining us for a meal, I usually add ½ cup of juiced celery to the mix, or sometimes some crushed-up seaweed.

A really 'dressy' looking pie can have a top of potato mashed with a little milk, so it can be spread smoothly over the whole top, instead of breadcrumbs. Use a hot spatula or a hot broad-blade supple knife. Bring the potato cover up to the centre of the pie top, making it a kind of pyramid. Draw a fork from edge to top. Sprinkle a few nut pieces, sunflower, sesame or poppy seeds (or what-have-you) on the apex and around. It looks very professional served from the table. I usually serve pies with mushroom or onion gravy, plus steamed or baked vegetables, of the kind which have not already been incorporated in the pie mix.

Happy pie-making — give your imagination free wings!

LAYING OR NOT?

by Megg Miller, Shepparton, Vic.

*Hickety, pickety, my black hen,
She lays eggs for gentlemen;
Sometimes nine and sometimes ten,
Hickety, pickety, my black hen.*

Keeping a small flock of hens in the backyard can be very rewarding but there are several points to keep in mind if you want to make it an economical as well as an enjoyable hobby. Along with normal management practices like internal and external parasite control it is important to evaluate the productivity of your hens once or twice a year and make the difficult decision of who will stay and who will be 'dispatched', to put it delicately.

Hens and pullets produce a different number of eggs per year and lay for different lengths of time. Pullets are females in their first season and may be either under 12 months old or not having passed through the full annual moult. Thereafter a laying bird is referred to as a hen. Pullets normally begin laying around 20-22 weeks, an age at which they are described as being point of lay (pol), and if they were hatched during spring would commence laying the following autumn. If hatched later they would not reach sexual maturity until the winter months when the hours of daylight would be too few to stimulate their hormonal system to trigger off egg production. Thus they would wait until daylight hours were increasing (early spring) before commencing to lay and then continue through to autumn like their spring hatched sisters. Obviously the latter pullets are a more economical proposition than those hatched during the summer months.

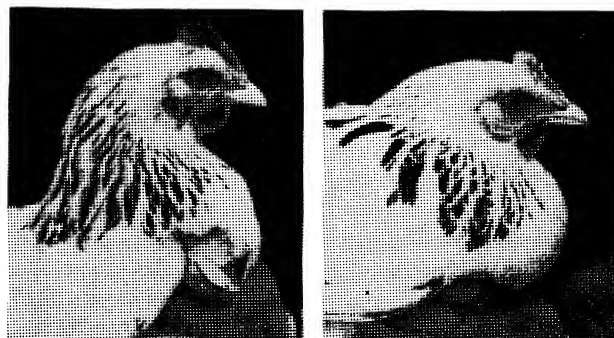
Hens lay fewer eggs than pullets. They generally only lay from spring through until autumn, when they moult and rest, and their production drops off considerably for each year of age. In their favour though are larger sized eggs than those laid by pullets. Home breeders have always bypassed eggs from the latter when setting a clutch, preferring instead eggs from 2 or 3 year old hens. Larger eggs, it is thought, produce larger, stronger chicks which in turn produce large adult birds.

Your laying flock then, be it 6, 10 or more birds, could be justifiably composed of two thirds pullets and one third hens, taking out each year at least one or two hens and replacing them with the best of your pullet layers. The non or poor layers are the culls, their low production being due to heredity, ill health or parasites, or obesity.

The flock should be examined around September each year and then again in late summer before their annual moult. Mid spring is chosen because highly productive birds would have been in full lay at least 1-3 months and any lagging behind would show clearly, and late summer is used because less productive hens tend to moult early whilst the better layers continue well into autumn.

There are a number of points to look for when determining productivity (or lack of it) but they work best when used together to form an overall picture and not as isolated factors. Birds need to be picked up and examined and the following differences noted:

- Look at the head — a layer has a smooth red comb and



Compare the heads of your hens — a layer will have cherry red comb and wattles whilst the non-layer's (right) will be pale and shrunken.

wattles, bright eyes and an alert, curious expression. A non-layer has a pale shrunken comb and wattles, wrinkled skin and sunken eyes with a sluggish expression.

- Look at the vent — it should be large, moist and open. A non layer will have a small, dry closed vent.

- Look at beak and egg colour — many breeds have yellow skin and legs and when the hens have been laying several months the colour becomes leached out from around the vent area, then the legs and finally the beak. Such birds, the better layers, would end up with white shanks.

- Feel the abdomen — it should be soft and pliable, not hard and firm nor full as when carrying extra fat.

- The feathers of a good layer should appear rough and broken from frequent visits to the nest. Beware of birds with good plumage when their flock mates are looking tattered.

- Lastly examine the pelvic bones of the birds. These are two pointed bones immediately above the vent. When in lay the bones open outward and will accommodate 2-4 fingers between them, when not laying the bones are close together.

Remember too that a good layer is always busy, always hungry and is early out and late to roost. She is also a happy hen that sings unselfconsciously and carries her tail high in a wedge shape as she rushes through the day. To her 'an egg is always an adventure — it may be different' (Oscar Wilde).

Postscript

For those unfamiliar with the terms moult or moulting, this is a normal process that usually occurs when hens stop laying at the end of the season. A new crop of feathers grow through, pushing the old ones out over a 6-10 week period. It is a vulnerable time for birds as they appear to feel sudden changes in temperature, are susceptible to stresses and often show marked emotional instability.

RECYCLING

Use old yoghurt containers and margarine tubs:

- to grow herbs on your kitchen window ledge.
- to store cheese, cut tomatoes, leftover rice etc. in the fridge.

Used coffee jars are ideal for storing nuts and bolts. No more rummaging through rusty old tins — find what you want at a glance.

WE'RE DOING ALL RIGHT

by Lenie Morcus, Bundaberg, Qld.

It seems like a lifetime since I told you the story of our start on the land in a previous issue ('Organic Gardening in the Bush', GR 60, p. 69). It is only two years ago and I am amazed at what we have accomplished since then. The drought took its toll on us and I must truthfully say that we nearly pulled the pin a couple of times. But we hung in there and I would like to share with you some of the ups and downs.

The hut pictured in GR 60 is now my greenhouse where I start off the seedlings for the garden. I still have not resorted to any chemicals or pesticides of any kind and have built up quite a good ecosystem. I get really excited, when pulling out grass outside the garden beds, to see healthy earthworms. I am still shitslinging but on a larger scale. My husband Alan has become an enthusiastic gardener now, in fact he is almost taking over. We collect the manure in our ute and have acquired a fabulous watering system thanks to the ingenuity of my very clever man. I'm very proud of him. Of course it helped a lot when the price of vegetables became ridiculous. He gets a great kick out of taking our city friends 'shopping' in the garden for the evening meal: capsicums, chillies, tomatoes, chives, parsley, garlic and onions for when we have spaghetti; cabbage, carrots, silverbeet, caulis, squash, pumpkin, beans, peas for other meals; and the most delicious passionfruit and strawberries for dessert. Our first bucket of potatoes (as Alan told me to say) were crisp — even if you overcooked them they were still crisp and not powdery. He just loves his potatoes.

But let me tell you of our proudest achievement — our house. It was literally built with blood, sweat and tears and as I told you in the former story, Alan builds sturdy constructions that are, I am willing to bet, cyclone proof. Please God don't put it to the test!

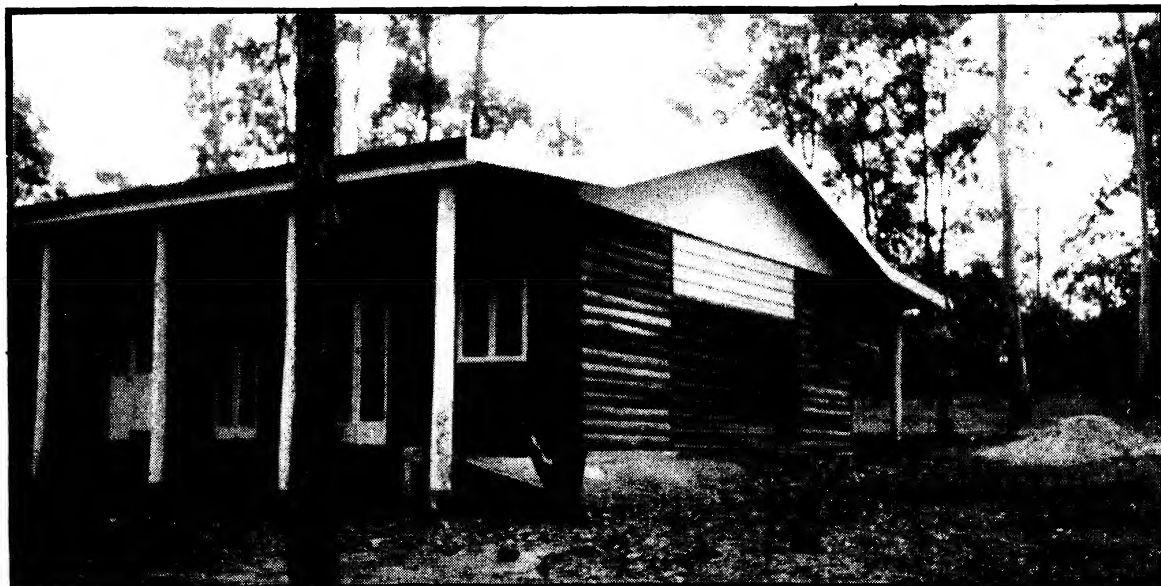
We started off by digging — or rather chipping — through rocky soil 1 metre (3 ft) down and levelling up with a retaining wall for the slab. We did it all with pick and crowbars and shovels early on winter mornings. What a job! We laugh

about it now when we look at the tractor with a post hole digger we have since acquired. Our neighbours came over to help put down the concrete, as we helped them with theirs, so it worked out well. Oh boy, the usually uncomfortable bed sure felt good at night.

So there we were with a beautiful floor but it got too hot to work for a while. The garden went to pieces when the dam dried up and our marriage just about did too. My father became ill with cancer and I spent many hours on the road commuting to be with him. He so wanted to see our house finished but it was not to be. Dad was a real Steptoe — he hoarded anything and everything — and he knew that by giving us all his rusty nails, bolts and bits and pieces, they would be put to good use, as indeed they were. There is definitely a part of my father in this house and his old chair takes pride of place.

I am writing this at the big oak kitchen table, with a real light on. No, we don't have mains power, we have solar power and there's no bills every quarter. The wood stove is crackling and I'm warm and cosy. Alan is watching TV on a 12 volt colour set and we even have the luxury once in a while of watching a video with the generator on in the shed. My washing comes out bright and clean in the old wringer (laundromats are hopeless). I'm very lucky with water as I insisted on a 13,600 lt (3000 gal) concrete tank and with the roof so large it fills up in no time. In fact if we could afford it I would love another one just for the overflow. Wouldn't I have a lovely garden around the house then. But give it time, I have patience, it will happen.

Just like I have to have patience with the toilet. The floor is poured and the bowl is in place, but it seems that it is one job which will come last. Alan just loves to go and sit in the garden on a bucket and be at peace with nature. And of course it's a waste not to be able to use the compost. If you knew our soil you'd know what I mean. The more he gets teased about the



Our log cabin is up at last after months of living in a makeshift hut. The temporary tin at the end of the cabin will soon be replaced by a rock open fireplace and then we will set about establishing some plants and greenery.

loo the more he won't do it. He often walks back up to the house after his constitutional and reports sightings of unusual birds or possums. Our visitors are not convinced and they sheepishly head off to the bush with the toilet roll to find a big tree as far away as they dare to go.

Another thing I give full credit to Alan for is the site he picked to build our house. We hacked our way through the bush to a small creek which we had excavated and there is now a lovely lagoon 3 m (10 ft) deep in the middle. It's just lovely in summer to swim in and because Alan built a barrage to catch the topsoil when it rains hard, the water is very clear. The afternoon verandah looks out over the water where we sit and watch the ducks and geese. They must be the luckiest birds in the world, they really have an idyllic set up. At the moment they are all nesting and soon we should have ducklings and goslings swimming around. My nieces and nephews are coming to visit for the school holidays and they will be delighted. I feel very lucky to have the freedom on a hot day to strip off and dive into the cool water.

Our next big job is putting up a fence around the house — the chooks can't have it all their way and I'm sick of howling about my plants and trees being eaten. As I described earlier, the garden has a very sturdy fence now, but I'd also like to have some greenery around the house. We don't have the heart to keep the chooks locked up for too long. They free range over about 2 ha (5 ac) and the eggs are so sought after I could sell ten dozen a week if I had them.

We are so proud of our fowl. There are chooks of every colour running around including three guinea fowl, bantams and a Rhode Island rooster that for some reason has taken a dislike to Alan and attacks him every chance he gets — till yesterday, when the showdown came. Alan, with deep scars on his arms and legs wielded a big stick to him. He thought he might have overdone it for a while there as the rooster tottered from leg to leg in a daze. 'Oh, no', said Alan, 'I've done it now'. 'My prize rooster!' But he has survived and has gained respect for Alan now. Alan just put his little bit in here and said to tell you, 'You can't have good stock without good breeders!'.

We are learning so much here. Considering we started with no knowledge at all we are doing all right. The biggest challenge coming up is our open fireplace to be built with rock off the property. We are going to practise with a courtyard and stone wall for a fernery on the morning verandah and if it turns out well we will start on the chimney. My biggest desires were for an open fireplace and a waterbed. Well the waterbed is stationed in the big bedroom and what a joy it is — definitely a marriage improver. And if we can sit by the open fire next year in winter we will have it made. Wish us luck folks, and all the best to likeminded people.

GET RID OF THAT SMELL . . .

- To rid refrigerator of odours, place a small container full of charcoal on one of the shelves for a few days. You can repeat this until the offending odour has been eliminated.
- Eliminate the odour after oven cleaning: place orange peelings on a rack in your oven and turn it up to 180°C (350°F) for a few minutes.
- For reformed smokers, a bucket of water with a few slices of lemon in it placed in the room will absorb the odour of stale cigarettes when the guests have departed.

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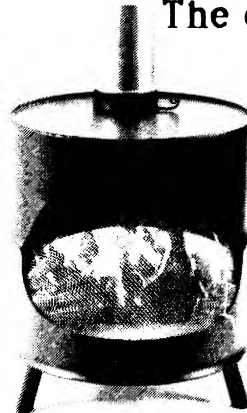
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SPEAR GRASS

by Lyn Browne, Kilkivan, Qld.

When the early European settlers came to the South Burnett area of Queensland they brought their sheep with them to graze the land. Before long they had to exchange their sheep for cattle. The reason for this was the increase in the spear grass.

No doubt the spear grass was always there but the sheep must have eaten out the softer and tastier grasses and allowed the harder spear grass to thrive and take over. Sheep will eat the spear grass but it can kill them. Once the grass has headed up, those sharp little spears will cut through a sheep's intestines. Cattle can handle the grass without difficulty and there are many cattle in the area who seem to live on a continuous diet of spear grass.

Spear grass is bearable at any other time of year but the end of summer when it heads up into its deadly array of little spears. I certainly avoid contact with the grass as much as possible in that period. Even so, those wretched spears find their way into my socks, underwear, shirts and shorts. Sometimes they lie unnoticed for days in your clothing. They seem to go through the wash and make their presence felt next time you wear the article.

A local grazier told me that he finds the spears work their way into the soles of his feet from which they have to be dug out. He also claims the loss of a dog to the grass. I know I have dug a spear out of my Labrador's belly. My cats pick up the spears in their fur but so far seem to have come to no harm from them. The spear has a thin, hair-like trailer on it which advertises its presence. While these 'tails' are still attached the spears are reasonably easy to identify and remove.

I don't know how spear grass would affect poultry but I would not like to expose my birds to it. I should imagine that their digestive systems would not be able to cope with those spears either.

Despite all the bad things about spear grass most of the year it is still a reasonably nutritious feed for cattle. It is only when it draws to the heading stage that its value drops. It would be nigh on impossible to eradicate the grass. There are no vacuums in nature and if you remove the spear grass something else would grow in its place. I almost hate to think what that would be as spear grass is such a hardy grass which is happy to thrive on the poorer soils.

When I came to my property, after a seven-year drought, the land was very barren looking with hardly any grass growth at all. But the grass regenerated with the coming of the rain. In good times the spear grass will grow to four feet and form a dense cover on the land. Part of my land has been ploughed and used to grow sorghum. There is no spear grass on those areas but I will no doubt have to watch in future to see if it spreads there too.

The main objective with spear grass should be control. This can be achieved by mowing or slashing which prevents the grass from heading up. Some graziers try to introduce a legume into the grass to improve its feed value. Cattle can be used to help control the grass. If they are allowed to graze on an area and then moved to improved pasture and back to the spear grass again the growth of the grass could be checked and the animals maintained. Another control could be to burn areas in the summer months to encourage regrowth and prevent heading.

It really is a case of spear grass — love it or leave it. It is a survivor which can cope with the severe weather conditions that the country can hand out and as such should be accepted and utilised.

A useful reference book is *Poisonous Plants — a Handbook for Farmers and Graziers* by E J McBarron and published by Inkata Press in Melbourne. The illustrations are from this book.

spear grasses



Spear grasses belong to the *Stipa* species and are single-seeded grasses with a long cylindrical and sharply pointed seed. Attached to this is an awn or bristle twisted spirally like a corkscrew, which of course can pierce the skin and cause irritation as well as infection.



WORMWOOD TEA INSECT REPELLANT



Place a handful or two of chopped herb in a bucket and cover with boiling water. Stir occasionally until the mixture starts to ferment. The resultant liquid is naturally sticky and will easily adhere to the plants which require insect control (aphis etc).

Reprinted from *The Living Soil*, vol4, No 14, the Soil Association of SA Inc, GPO Box 2497, Adelaide 5001.

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Solar Hot Water for Beginners

A domestic solar water heating system consists of solar collectors and a storage tank connected by piping.

SOLAR COLLECTORS

Four types of hot water solar collectors are currently on the market.

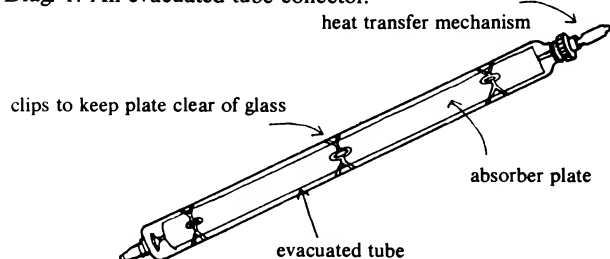
Flat Plate Collectors

Most of the collectors being sold today are of this type. They consist of a blackened absorber plate within a glazed and insulated box. The absorber plate is made of metal and has waterways through which the liquid to be heated flows. Generally the absorber plate coating is a chemical treatment called a selective surface. This helps retain more heat in the absorber plate and gives better performance than black paint. The glazing is usually glass. Low iron glass is commonly used today, as it is more transparent than ordinary window glass and improves performance.

Evacuated Tube Collectors

If the heat loss from an absorber plate can be reduced, higher temperatures will be achieved. One way of reducing heat loss is to put the absorber plate in an evacuated (vacuum) tube, similar to a thermos flask (see diagram 1). Evacuated tubes perform better at higher temperatures (say above 60°C/140°F) and on cloudy days than a flat plate collector.

Diag. 1. An evacuated tube collector.



Concentrating Collectors

When collectors track (or follow) the sun, more solar energy will fall directly on the collector over the whole day. If this energy is also focused (like a magnifying glass) onto a single point or line, then higher temperatures can be achieved. The temperatures produced by concentrating collectors are higher than usually required for domestic hot water (see diagram 2).

Concentrating systems are more effective on cloudless days and are better suited to central rather than coastal Victoria — where clear sky conditions are more common. The tracking mechanism makes these systems more complex than simple flat plate systems. One system of this type is now on the domestic market.

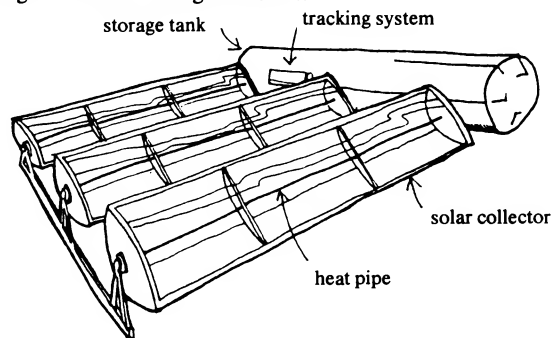
Solar Boosted Heat Pump

A solar boosted heat pump produces hot water using the refrigeration principle. Instead of releasing heat to the air, as in a refrigerator, heat is absorbed by a tank collector containing refrigerant, and stored in the hot water tank. The mains pressure tank is usually located at ground level and electricity is required for the system to operate.

STORAGE TANKS

The storage tank is an essential part of a domestic solar water

Diag. 2. Concentrating collectors.



heating system. A good collector connected to a poorly chosen tank will make a poor system. The construction and size of the tank and collector chosen are equally important.

Solar tank designs include:

- vertical and horizontal types;
- low and mains pressure;
- gas, electric or solid fuel boosting;
- off-peak or continuous tariff electric boosting;
- internally or externally mounted tanks.

All storage tanks should be well insulated, and sized to hold between 1½ and 2 days supply of hot water. For the most efficient operation the thermostat for the booster should be set at about 60°C (140°F). Tanks are made out of a variety of different materials and purchasers should also consider the manufacturers' warranties when making a selection.

SELECTION AND INSTALLATION

For Melbourne and places with a similar climate 5 m² (54 ft²) of collector and 360 l (80 gal) of storage for a family of four is recommended. In northern Victoria 4 m² (43 ft²) of collector may be used to provide similar amounts of hot water.

With an off-peak storage tank it is the volume of hot water above the heating element which is the critical factor. This will determine the reliability of the hot water supply in winter. At least 250 l (55 gal) of water should be available for off-peak heating. A smaller collector area will reduce the solar contribution to your hot water and a smaller tank could lead to a shortage of hot water.

Solar systems rely on either a natural thermosyphon effect or a small pump for the circulation of water. Where the solar collectors and the hot water tank are located will determine the type of system required.

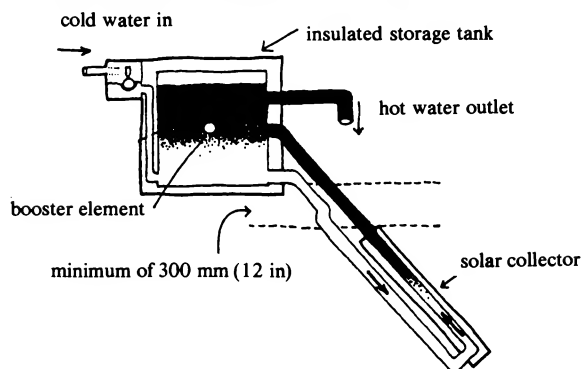
Natural Thermosyphon

Natural circulation by convection operates on the thermosyphon principle that hot water rises. When the water in the collectors is warmer than that in the storage cylinder, it will move from the collectors to the storage tank, when the tank is located above the collector.

Thermosyphon systems may be either:

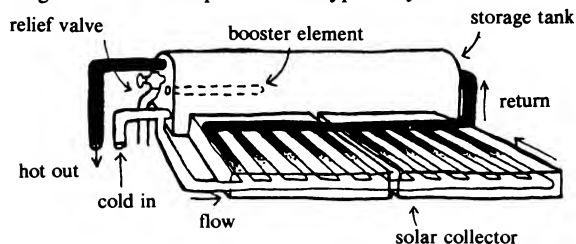
- Separated thermosyphon — with this arrangement the collectors are mounted externally on the roof and the storage tank is inside the roof space (see diagram 3). Where the tank cannot be mounted in this position, as is the case with flat roof construction, an alternative system must be used.
- Close-coupled thermosyphon — in this arrangement the

Diag. 3. Cross-section of a separated thermosyphon system.



collectors and the tank are mounted externally as a single unit (see diagram 4). The roof must be able to support the weight of the full tank and strengthening may be necessary.

Diag. 4. A close-coupled thermosyphon system.

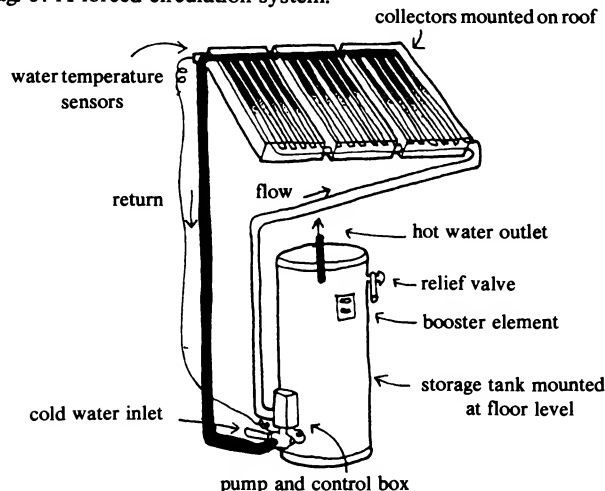


- Low profile thermosyphon — these are very similar to separated thermosyphon systems, except that the tank and collectors are installed at almost the same level. Proprietary fittings and plumbing allow this to be done without reverse circulation occurring at night. This system has obvious advantages in requiring less roof space, allowing installation in low pitched roofs.

Forced Circulation

This allows the storage tank to be mounted below the collectors, usually at floor level. The water is circulated through the collector system by a small pump controlled by sensors which determine the difference between the water temperatures in the collectors and in the tank (see diagram 5).

Diag. 5. A forced circulation system.



Pre-heater

Any of the above systems can be used as a solar pre-heater combined with an existing hot water system. The solar

system is installed between the incoming water line and the cold inlet in the existing hot water system. The pre-heater is essentially a complete solar unit and is commonly a close-coupled unit.

Solar pre-heating has the advantage of increasing the hot water storage capacity of the total system. The electric heating element in the pre-heater is not usually connected and this can save on installation costs.

Installation Checklist

- Make sure the collectors are facing north and tilted at the correct angle. For best performance throughout the year the angle of inclination should be approximately 35° in Victoria.
- Make sure the solar collectors are not shaded by trees or nearby buildings.
- Make sure all outdoor components (and roof tanks if necessary) are properly protected against freezing.
- Keep the storage tank and solar collectors as close together as possible to keep pipe runs short.
- Make sure all components (including pipes) are well insulated and all outdoor parts are weatherproof.
- Check that the roof structure is strong enough — a 300 l (66 gal) tank full of water with 4 m² (43 ft²) of collectors weighs about 500 kg (1100 lb).
- Make sure all plumbing is done by a licensed plumber. Check that the heater meets electrical safety standards, and that all wiring is done by a licensed electrical contractor.

Wood Stove Boosting

This is becoming a popular type of installation and is particularly economical when wood supplies are easily obtained. The wood stove will be the prime heating source during winter, when there is limited sunshine available. During the summer months the solar unit should supply most, if not all, of the household's hot water when the wood stove is not in constant use. Care should be taken when boosting with a wood stove to ensure the tank is not a mains pressure system. (See the Solar Council's brochure *Water Heating Using Wood*.)

CARE AND MAINTENANCE

Don't set the booster thermostat too high — 60°C (140°F) or below is recommended. The lower the thermostat setting, the lower the electrical energy used to supplement solar heating.

A heavy drain of hot water late in the afternoon and early evening will require substantial heating of the water in the tank by the electrical booster. Thus to allow the water in the tank to be reheated by the sun you should, if possible, do jobs requiring a lot of hot water early in the day. This will reduce the electrical boosting period.

Check the collectors periodically to make sure they are clean and weatherproof. Dirt and rain leaks reduce efficiency. The system should be sized to provide all your hot water requirements when operating on electricity alone to ensure adequate supplies on days of little or no solar input.

Temperature Extremes

The freezing of water in a solar collector can cause damage. This can occur in all parts of Victoria, including Melbourne. To prevent frost damage manufacturers have developed a number of mechanisms to protect your solar system. Frost protection may use:

- an anti-freeze solution circulating through the collector

(such a system will have to have a heat exchanger in the storage tank);

- electric elements in the collector ;
- valves which open and dump a quantity of water ;
- pumps which circulate water between collector and tank.

All these devices are activated when the water temperature in the collector approaches freezing.

During periods of low hot water consumption (for example, during holiday periods) the system can be subject to high temperatures — the water may eventually boil. In a well set up system this will not cause any problems.

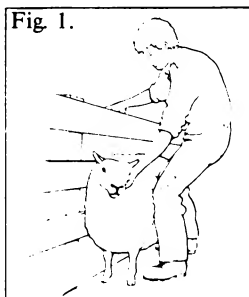
Some tank linings are damaged when in contact with water over 70°C (158°F). Any system with such a tank should include a protection device to prevent very hot water entering the tank. With a new, complete solar system this device should already be included. However, if collectors are fitted to a conventional electric or gas tank then it is important to check that hot water will not damage the tank lining or to fit a protection device.

The performance of any solar system is very dependent on the installation practices and procedures. All systems should be installed in accordance with the recommendations of Australian Standard AS 2002 — *The Installation of Household Type Solar Hot Water Supply Systems* and the manufacturers' instructions.

Reprinted from *Domestic Solar Water Heating*, published by the Victorian Solar Energy Council. Many other informative leaflets are also available. The Council provides a free advisory service on all applications of solar power, including solar efficient house design, remote area power systems, pool heating, for domestic and commercial uses. Victorian Solar Energy Council, 10th Floor, 270 Flinders St, Melbourne 3000. Ph: 03-654-4533.

HOW TO HANDLE ANIMALS

As the Accident Compensation Corporation has found to its cost, the most common farm accident claims are linked to stock handling. Accordingly, the ACC has produced a publication, *Sheep and Cattle Handling Skills*, that distills generations of experience and the latest information from two special field exercises involving stockmen, safety advisers, veterinarians and animal behaviourists. The booklet, compiled by Robert J Holmes, senior lecturer in Animal Behaviour at the Department of Veterinary Clinical Services of Massey University, describes the 'best' way to do each common animal handling task under NZ conditions. For example, figures 1 and 2 show the easiest ways that are safest on the back to keep a sheep still in yards and in open areas. Copies of the useful booklet are available from the Accident Compensation Corporation, Private Bag, Wellington NZ.



Reprinted from *Smallfarmer*, Oct 1988, PO Box 6030, Tauranga, NZ.

PENPALS

I am a 15 year old girl who lives on a farm with my 3 brothers and 3 sisters. I enjoy reading, swimming, bushwalking and talking to different people.

Donna Shaw, 4 Newell St, CLANDULLA 2848.

My name is Frances Ashman. I am 32 years old and have recently retired from the work force to be mother to my 1 year old daughter and my husband's children 10 and 11 from Vietnam. I love recycling, books and Tai Chi. We live in suburbia and plan for our little bit of land.

2 Egret Crt, AUSTRALIND 6230.

I am a 20 year old Filipino and would love to hear from Australians 23 years and over, to learn about your culture.

Judilyn Triston, Purok #3 Libertad, Butuan City 8600, AGUSAN DEL NORTE, PHILIPPINES.

Hello everybody. My name is Christine Henderson and I am 14 years old. I love music, clothes, swimming and generally goofing around like all 14 year olds. I would like to write to any boy or girl between 13 and 15 years.

1 Segenhoe St, WOODBERRY 2322.

I would love to hear from boys or girls 15 to 20 years. My name is Sarah Holbrook and I am 18 years old. Hobbies include disco, records, Aussie TV shows and travelling.

12 Richard Lewis Close, Danscourt, Cardiff, GLAMORGAN, WALES UK.

My name is Sherry Stephens, I am 13 years old and looking for a penpal. My interests are collecting posters, reading magazines, watching videos, listening to music, playing sport and roller skating. I would like a penpal either sex around the age of 13-14 from USA.

Lot 2 George St, TORBANLEA 4662.

Hi, my name is Richard Philp and I'm 9 years old. My interests are athletics, cycling, music, tennis, swimming and cricket. I would like boy or girl penpals between the age of 8 to 11.

Young Rd North, DEEP CREEK VIA GYMPIE 4570.

ASK THE MITES TO TEA

Splashing your floorboards with cold tea before sweeping up the dust could help allergy sufferers, according to research undertaken at Sydney University. The mites in house dust contain a host of allergens and there appears to be an allergic basis for several diseases — including asthma, hay fever and eczema. The new research shows that the tannic acid in tea is the only known substance which completely neutralises the mite's 'allergic' effects. (American and Japanese manufacturers have responded quickly to the research and are now planning tannic acid spray-packs for asthma and allergy sufferers.)

Reprinted from *The Sage*, Vol 11, No 3, Mar 87, newsletter of Qld Herb Society, PO Box 209, Paddington 4065.

CRYPTIC GRASSWORD

Continued from page 45.

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PLANT PROPAGATION

by Arthur Fergusson, Mulbring, NSW.

Now is the time to commence getting those green fingers busy. Try reproducing some healthy plants by striking from either leaves, slips, cuttings, or at times even layering.

The great advantage in propagating is to cultivate and create additional plants true to variety for one's own collection and to have surplus to either exchange with other enthusiasts or to give to some young folks to inspire and encourage their interest in gardening. Thirty years ago I was developing organic gardens and lawns around a new home in Brisbane. We didn't have a plant of any sort to start with, just a virgin area around the house, but luckily I had a good neighbour who had established his garden a couple of years previously. He gardened on his day off to earn extra money and started me off with cuttings from which I propagated dozens of plants. During those first few years I purchased only three shrubs, all presents for my wife.

My youngest son, then only 8 years old, became interested in viewing different shrubs and plants in other gardens on his way home from school, so much so that he would often stop and talk to folks if he saw them in their garden. One evening young Philip met me with an excited greeting. He had obtained some pieces of two or three hibiscus shrubs from a lady, and had promised her a potted plant in return. I selected a nice healthy plant I had struck and Philip eagerly dashed off to keep his word to this lady, to give her a potted plant in return for the pieces.

That became a practice with Philip. He would actually go out of his way on his return from school to view different gardens. When he saw a plant he thought we didn't have, he would go in, knock on the door and politely ask the person if they would give him a small cutting or two in exchange for a growing potted plant. In this way we amassed an amazing collection of outdoor and indoor plants — from the industriousness of a small boy, a good neighbour and propagation.

PROPAGATION METHODS

A plant is propagated by striking parts of it in a suitable medium whereby root growth is developed and starts growing. The parts of the plant commonly chosen are:

- leaves — one sole leaf is taken by removing it with a heel from the parent plant;
- slips — young side shoots off the main stem of a plant are taken the same as a leaf, by breaking it off with a heel from the parent plant;
- cuttings — may be either taken from semi-mature hardwood or semi-mature shoots off the parent plant.

The semi-mature cutting may be prepared from plant shoots and tips which have been growing from early spring and are maturing and becoming firmer at the base yet soft at the tips. These are young sections of growth and may sometimes be taken with a heel pulled down from the parent plant and taking with it a small portion or sliver of the older wood. Late summer and autumn is the time to obtain semi-hardwood or semi-mature cuttings.

Essential Materials and Equipment

Before commencing any attempt at propagation, firstly provide yourself with a few essential implements. These are a good sharp knife, a good quality sharp pair of secateurs and a

dibble stick — I use a meat skewer or the handle of a small paint brush. You also need some hormone dipping liquid or powder and a quantity of propagating mixture (or you can mix your own). You need some type of container pots, plastic or terracotta, or you may even use plastic icecream containers, but don't forget to pierce some drain holes in the bottom. You'll also need some clean plastic bags, a short piece of plastic tube, plus some bag ties and of course your plant pieces. Set yourself up in the shade somewhere at an old table or workbench with a clean top surface.

Taking Cuttings

Be sure to select strong healthy disease-free plants from which you take cuttings or slips — this is most important. Avoid shoots which have any flower heads, remove the flower buds if you have to use that particular cutting. It is most advisable to collect your cuttings in the cool early morning, when all plants are at their freshest. If you have taken or been given propagation material which is drooping slightly, make up a solution in a plastic bucket of water, by adding a capful of Field Pack solution. Stir well, and totally immerse the cuttings for 15 to 20 minutes. You will find the pieces totally recovered, so proceed to plant the cuttings straight away.

When taking your cuttings, sever the pieces just above the node or joint of a leaf on the main branch of the plant. I have found that small shoots about 10 cm (4 in) long have been the most successful for me. After selecting and removing the cutting (initially longer than you intend to plant), carefully trim the end with your secateurs, avoiding any bruising of the base of the cutting. Cuttings without heels are made ready by cutting straight across the stem just below a node on the leaf joint. Remove any excess leaves from the stem and reduce the top leaves to two thirds in length — be careful not to damage the centre of the crown of the cutting. Dip the cut end into hormone solution or powder (which may be purchased at your local nursery) — this will encourage and promote stronger roots more quickly after planting. I prefer to use a liquid hormone solution.

With the dibble stick or meat skewer, pierce holes in the pots of mixture for each cutting. I use 15 cm (6 in) plastic pots and can comfortably strike up to a dozen or more cuttings without overcrowding. When planting, be very careful not to damage any of the bark at the base of the cutting, as any damage will prevent root development and allow disease to enter.

Insert the cutting from a third to half its length into the potting mixture, and firm it down with finger pressure around it. After all cuttings have been planted, water well with the mixture of Field Pack solution and let drain thoroughly. When drained, stand the pot in a clear plastic bag, pull the bag up around the top of the pot and above the top of the cuttings. Close the top of the bag round one end of the piece of plastic tube. Hold it tight with one hand to form a seal, then place the free end of the tube in your mouth and blow to inflate the bag as tightly as possible. Hold the neck of the bag securely, remove the tube without allowing any air to escape and secure

the bag with a wire tie.

This forms a cloche, a miniature glasshouse condition. This tends to promote quicker and more substantial root development. Place the pot in full light, but not direct sunlight. After 6-8 weeks, you may open the bag and by gently pulling on one of the cuttings you can establish if there is some resistance. Then you will know there is root development present. Leave the bag slightly open at the top if roots have developed. This will permit the roots to harden off over the next few days, then they may be removed from the pot and potted up individually in small pots for further growth. Be careful not to allow the pots to dry out after transferring the rooted cuttings.

Nurseries usually have various grades of potting and seedling mixture, or you can make up your own from one part sterilised German peat moss to 2 parts of coarse washed river sand. Do not use fine sand as it packs down and does not drain so freely or allow for circulation of fresh air after watering. Blend the potting mixture well, and thoroughly wet it through, but have it as a moist crumbly mixture, not a saturated sloppy mess. In the situation where you use the plastic bag as a cloche, the initial watering is sufficient. If the bag collapses, simply open the top, reinflate it and secure with a new tie. A favourite potting mixture of mine is made up of 3 parts coarse washed river sand, 2 parts sterilised German peat moss, 1 part good loam and 1 part vermiculite or perlite, plus a sprinkling of dried blood. Thoroughly blend together moist and let stand for a month to allow the dried blood to break down and become available as plant food. It is important to prepare the potting mixture well in advance if you are contemplating a propagating programme and wish to prepare your own mix.

In preparation of large-leaved cuttings such as geraniums, pelargoniums, poinsettias and frangipani, it is important to collect the pieces by breaking them down from the branch of the parent plant where the junction occurs. Remove practically all of the leaves except the very small crown. Stand them vertically in a shaded but dry place and allow the broken surface to heal and callus over. This provides a sealed protective surface over the raw end, and helps prevent the likelihood of rotting internally up the stem, or an attack by disease. After the callusing over the cuttings may be planted directly into the ground or wherever the desired location may be (e.g. tub or pot). It is essential that you use a separate pot for each different type of plant.

In the propagation of indoor plants such as dieffenbachias, dracaenas or aglaonemas, these can be done by the log or split half section. Using this method, you select a section of stem and cut it into lengths in between nodes, allowing at least one node joint, but no more than two. After severing the lengths of stem using a clean sharp knife (I usually dip my knife blade into methylated spirits before and between all cuts) split the lengths of stem down the centre longitudinally, being careful that you don't split through the node. Then the pieces of split stem may be placed on and pressed down into the damp potting mixture with the split surface down so that the top surface is level with the mixture.

I usually start these sections for propagation in a prepared 2 l (½ gal) icecream container. Prepare in the following way. Take thoroughly clean container and place 2.5 cm (1 in)

depth of wet coarse washed river sand in the bottom. Add 5 cm (2 in) of moist sterilised German peat moss, thoroughly mixed and blended 2 parts of moss to 1 part of good sandy loam, on top of the wet sand. No need to puncture holes in the container this time. Firm down and spread the mixture evenly, and it is ready to put in the split log sections as described earlier. Lay a clean plastic bag flat on the bench, open the end and slide in the icecream container. Draw the plastic up tight over the top of the container and fasten it off with a bag tie. There is no need to inflate the bag as the top of the container will keep the bag well clear of the pieces of stem. Once again no further watering will be required. Place the container in full light but not direct sunlight. New growth will be observed as the bud on the node strikes, sending roots down into the mixture and leaves developing upwards. As the plants develop, the plastic bag can be opened over a period of several days to allow the new plants to harden up, then later they can be replanted into separate pots in a good potting mixture.

When propagating, don't be over anxious and try to strike too large a cutting. I have witnessed hundreds of shrubs and natives commenced with very small tip cuttings, those cuttings being no more than 5 cm (2 in) long and planted individually into 5 cm (2 in) plastic tubes. These were placed 50 tubes to a tray, the trays placed under sheets of plastic and the whole area covered with a large canopy of clear plastic sheeting supported above the trays of cuttings. This particular enthusiast always had remarkable success and had hundreds of young azaleas and natives to dispose of. Of course, the climatic environment around Brisbane is quite different to other regions, but you can still have great success with propagation yourself by following these methods.

Reprinted from *Hogs Tales*, Autumn 86, newsletter of the Hunter Organic Growers Society, PO Box 403, Cessnock 2325.

NATURAL PEST CONTROL

An extract from the Neem tree — India's national tree — could replace hazardous petro-chemicals used to control agricultural pests, a Queensland entomologist said recently. The Queensland University senior entomology lecturer said the Neem extract, containing the molecule azadirachtin, did not harm mammals and the tree was a good shade and fodder crop in dry, tropical areas. Two Australian companies in Lismore and Brisbane are already set to produce the extract on a small scale and they have received around 300 inquiries from farmers wanting to plant the trees.

The natural pesticide is safer, does not pollute the environment and could be just as cost effective as current pesticides if manufactured on a large-scale. A litre (1 ¾ pt) of concentrate should sell for \$5 to \$6 once it gets into large-scale production. The only stumbling block is that big chemical manufacturers do not support azadirachtin because it is a naturally-occurring chemical and can not be patented for royalties.

WALLPAPER

Old rolls of wallpaper make excellent cheap drawing paper for children. If you can't use it, ask your local kindergarden if they can.

MAKING CONCRETE FENCE POSTS

Cement and Concrete Association of Australia

Concrete posts have several advantages over other fencing materials, making them a worthwhile option for farm use in many instances:

- Production costs are reasonable and they require no special skills to make.
- They are long lasting and virtually maintenance free, being resistant to fire, rot and white ants.
- Posts can be cast in any shape and size desired — square, tapered on two or four sides — and many different means of attaching wire or timber railings are possible.
- They are uniform in size and shape, making them easy to erect and giving an attractive appearance.
- Weeds and rubbish which accumulate against the fence can be burnt off without harming the posts.
- Their strength increases with age.

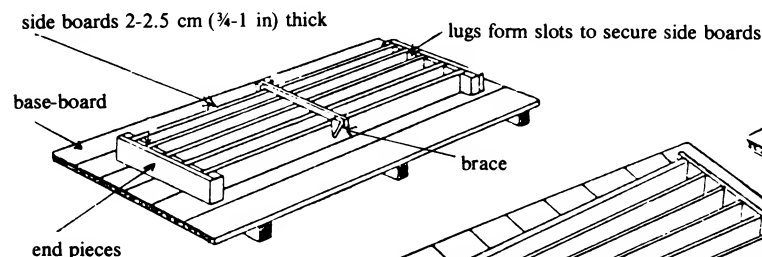
CONSTRUCTION

Concrete posts can be made at times when there is less pressure of other farm work, and stockpiled until required. Once the initial labour of making up the moulds is done, the actual construction of the posts is straightforward provided you follow the requirements and precautions outlined.

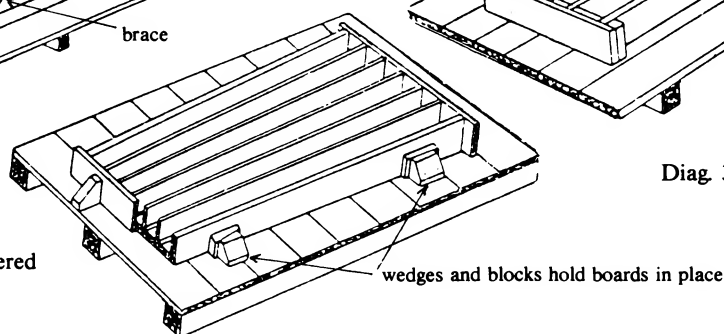
Moulds

The moulds for forming concrete posts can be arranged in sets up to almost any number, and consist of side and end pieces. They are placed on base-boards when the posts are being moulded (see diagram 1). On the base-board are set the wooden boards of either 2 cm ($\frac{3}{4}$ in) or 2.5 cm (1 in) thickness required to form the sides of the post. The end pieces have lugs attached to form slots into which the side boards fit. One or more braces are needed to prevent the sides from bulging. The length, width and depth of the spaces between the boards will correspond to the dimensions of the post to be moulded. The ends and sides are generally held in position by wedges placed between blocks on the base-board, as shown in diagram 2, but whatever method is adopted to keep the boards in place, it should be such that each part of the mould may be removed easily when the concrete posts have set and hardened.

Diag. 1. Mould for four untapered concrete fence posts.



Diag. 2. Mould for six posts tapered on four sides.



In diagram 2 is shown a set of moulds for concrete posts tapering on all four sides. In this design it is not possible to arrange the tapered moulds alternately, as is the case for posts tapering on two sides. All the butts, therefore, are at one end, and all the tops at the other. Diagram 3 shows a set of moulds for constructing concrete posts which taper on two sides. It will be observed that the moulds are arranged so that the broad end or butt of one post lies next to the narrow end or top of its neighbour, and so on alternately. This secures economy in space.

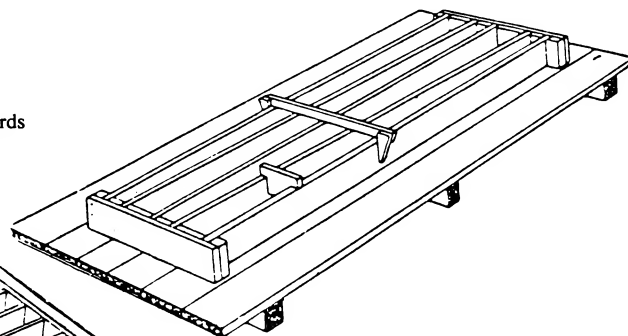
The upper edges of the boards in the moulds should be protected by being cased with strips of thin sheet iron, so that injury to the wood during tamping and trowelling will be avoided. Also, as it is usually desired that fence posts should not present sharp edges, triangular strips of not more than 2 cm ($\frac{3}{4}$ in) in thickness are placed in each angle of the mould. The top edges of each post when formed in the mould may be bevelled or rounded by an edging tool after the concrete is placed. This gives a neat finish to the posts and avoids the chipping which often occurs on sharp edges. Rounded edges on posts also prevent injury to animals which may come in contact with them.

Before being used the inside of the forms should be greased with either soft soap, linseed oil or lard mixed with kerosene or crude oil (petroleum) to prevent particles of concrete from sticking to the forms when removed, and giving the surface of the concrete an unnecessarily rough face. Sump oil is also excellent for this purpose.

Where concrete posts are to be made in large numbers, it is usually the practice to use steel moulds. These steel moulds should be simple in design, with arrangements for fastening and unfastening which are easy to manipulate, otherwise much time may be wasted.

Materials

The water, cement, fine and coarse aggregate should be equal in quality to the materials used in important reinforced concrete structures (see GR 64, p. 69, 'Materials and Mixes



Diag. 3. Mould for making fence posts tapered on two sides.

Table 1. Quantities of materials for concrete line posts.

Dimensions of post				Materials for 10 posts			
Length (m/ft)	Top (cm/in)	Bottom (cm/in)	Weight kg/lb	Amount of reinforcement in each post	1 Cement: No. of bags, 40 kg/88 lb	1 ½ Sand: m³/ft³	3 Metal or Gravel: m³/ft³
2.1/7	7.5 x 10/3 x 4	12.5 x 10/5 x 4	50/110	Four 6 mm	2¼	0.08/3¾	0.19/6¾
2.3/7½	7.5 x 10/3 x 4	12.5 x 10/5 x 4	54.5/120	(¼ in) round	2¾	0.09/3½	0.20/7½
2.5/8	7.5 x 10/3 x 4	12.5 x 10/5 x 4	59/130	or square	2½	0.10/3¾	0.21/7½
2.1/7	10 x 10/4 x 4	15 x 10/6 x 4	63.5/140	rods per post	2¾	0.11/4¼	0.23/8¼
2.3/7½	10 x 10/4 x 4	15 x 10/6 x 4	68/150		3	0.12/4½	0.25/9
2.5/8	10 x 10/4 x 4	15 x 10/6 x 4	72.5/160		3¾	0.13/4¾	0.26/9¾

Note: One paper bag of cement is considered as 0.028 m³ (1 ft³) in volume.

for Concrete on the Farm', for more information on this). The fine aggregate may consist of sand, or of sand and fine stone toppings. These materials should be free from any considerable amount of dust or organic matter. The coarse aggregate may consist of crushed stone or gravel, or any suitable combination of them. Aggregate containing any considerable amount of thin, elongated and laminated pieces will not be satisfactory, as the posts have a relatively small cross section, the space between the reinforcement and the surface of the concrete being very limited. In general, the maximum size of the aggregate should never exceed 1 cm (½ in). Table 1 shows the quantities required for posts of various sizes.

Proportioning and Mixing

All materials should be measured accurately. Water should be clean. Only enough water to make the concrete readily workable is to be used, as too much mixing water reduces the strength of the concrete.

Concrete may be mixed by hand or machine. Machine-mixing is to be preferred because a uniform, thorough mixing is easier to obtain. Whichever way mixing is done, it should be continued until all the coarse aggregate is completely coated with a thoroughly mixed mortar of sand and cement. For hand-mixing a watertight mixing platform is essential, and it should have strips nailed along two sides and one end that project 2.5-5 cm (1-2 in) above the surface. These help to keep the materials on the platform. A good procedure in mixing by hand is to spread the coarse aggregate out on the platform, and distribute the proportionate amount of sand evenly over it. The cement is then spread evenly over the mixture, and the mass turned until uniformly distributed. The whole should then be formed into a heap and a hollow made in the top, into which portion of the measured water should be

slowly poured. Push the upper edges of the crater into the water gently until the material is absorbed and then turn the whole mass over. If the mixture is too stiff add more of the measured water and continue to turn it over until the whole is mixed thoroughly and the desired consistency obtained.

Reinforcement

The size and correct placing of the reinforcement is important. Three or four steel bars, not larger than 9 mm (¾ in), or smaller than 6 mm (¼ in), should be placed at a distance of 9 mm (¾ in) from the outside surface of the concrete post (see diagram 4). This will ensure that the rods will be sufficiently covered from air to prevent rusting. The ends of the steel rods should be bent over at right angles and turned inwards. If the rods are laced at intervals by stout wire, their strength as a reinforcing medium will be considerably increased.

The reinforcement should be placed in position in the mould before the concrete is deposited. The rods should first be wired together at the correct distance apart, thus forming a framework, and the whole placed in a mould and suspended from bars or cleats laid across its upper edges. The suspending wires can be removed when most of the concrete has been placed in position.

ERECTING THE FENCE

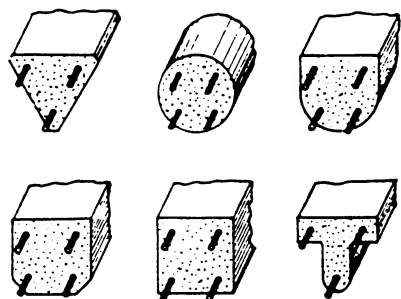
In setting up the fence, it must be remembered that if the posts are not square in section, the narrow side must face the most probable direction from which the load will come. Thus, for example, in a fence dividing a paddock from a road, the narrow sides would face the paddock and road respectively, and the broad sides would face the next post on either side.

Posts 2.1 m (7 ft) long are generally set in the ground 75-80 cm (30-32 in) deep. The earth round the post should be thoroughly consolidated by ramming, and if the bases are concreted in with a weak concrete (1:3:6 ratio of cement, fine and coarse aggregate) the result in additional strength and stability will repay the trouble.

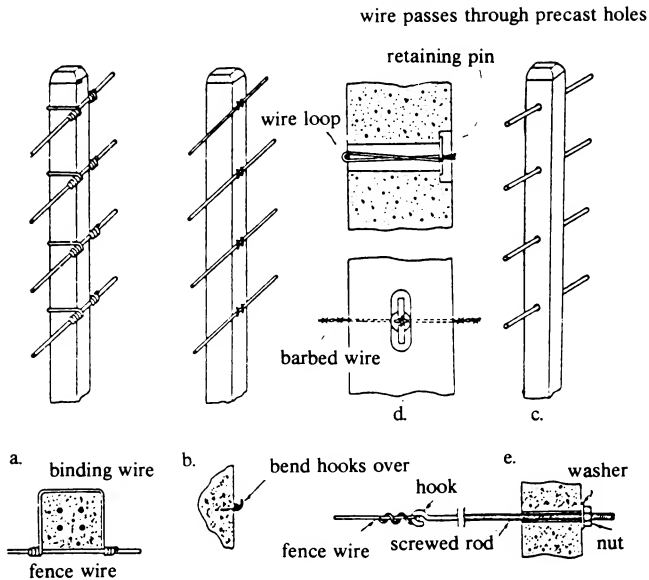
Attaching Wire

The general practice for attaching fence wire to concrete posts is the simple method of drawing binding wire attachments around three sides of the post and twisting their ends around the fence wire (as illustrated in diagram 5a). One advantage of this method is that if for any reason the posts cannot be set at the same depth, the wire attachment may still be placed in alignment. Another method is that of casting long staples in the post and attaching the wire to these (diagram 5b). When this method is adopted, the staple should be of galvanised iron

Diag. 4. Shapes of concrete posts showing placement of reinforcing.



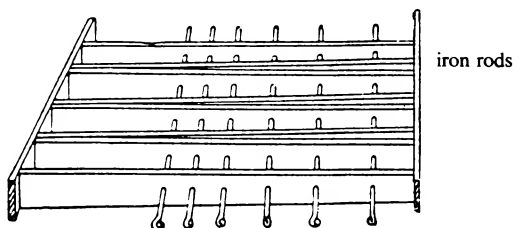
Diag. 5. Methods of attaching wire to posts.



in order to prevent rust. The inner ends of the staples should be bent to prevent extraction from the concrete posts. The method chiefly adopted, however, is that of threading the wire through holes previously cast in the concrete posts (diagram 5c). Where such holes have to be cast they are formed by inserting iron rods horizontally through holes in the divisions of the mould, as shown in diagram 6. This method can be adapted for any mould except when posts are moulded end to end, as in diagram 3. These rods are fixed before the concrete is set in the moulds, and are slightly greased so as not to adhere to the concrete mix. When the concrete is set sufficiently to retain its shape — which usually takes from four to six hours — the rods are withdrawn. It should be noted that the moulds designed to allow holes to be cast in the concrete posts are so arranged that the central lines or axes of the posts are all parallel and square with the end post, so that the holes will be in alignment when the posts are erected.

When it is desired to attach barbed wire to concrete posts, the common practice is to cast holes in the post in the direction from front to back instead of from side to side as for plain wire. The barbed wire is then attached by wire loops shaped like a hairpin and passed through the holes in the post (see diagram 5d). However, it will probably be found in practice that the better method is not to cast holes in the concrete posts but to depend on wire attachments going around three sides of the post. If desired, a groove can be cast at fixed intervals around the three sides of the post so that the wire may be restrained from moving. Wire can be attached to gate posts as shown in diagram 5e.

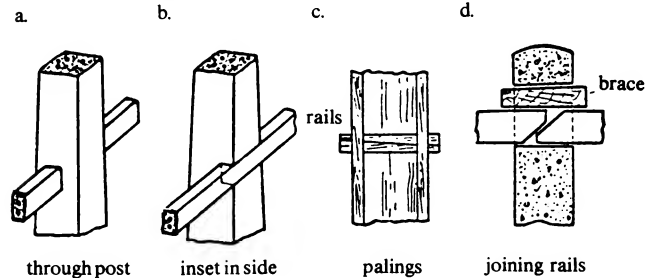
Diag. 6. Mould for posts with holes for fencing wires.



Attaching Rails

Concrete posts can also be used with wooden railings, as shown in diagram 7. If rails are to be set into the interior (7a) or the side (7b) of the posts, provision for this must be made when the posts are moulded. When several horizontal rails are required they may be supported by vertical railings attached to these inset ones (7c), and rails can be joined within a post as shown (7d). Bolts may also be used to attach railings to concrete posts — holes for these will also have to be prepared before the moulding process.

Diag. 7. Methods of attaching rails to concrete posts.



Part 11 next issue will explain the special requirements for making corner, gate and straining posts, and will describe the use of concrete to repair wooden fencing.

Information supplied by the Cement and Concrete Association of Australia, 147 Walker St, North Sydney 2060, a non-profit organisation sponsored by the cement industry to provide information on the many uses of cement and concrete.

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CHLOROPHYLL FOR HEALTH

by Liz Sinnamon, Nambour, Qld.



We owe life to sunlight and chlorophyll. Sunlight is the prime agency in generating life, as it is the source of energy. Sunlight is captured in plants through photosynthesis where it is joined with chlorophyll, transforming it to produce plant food. Chlorophyll, the green pigment in all plant life is an extremely important component in the plant's ability to manufacture food substances. This makes chlorophyll one of the most valuable nutrients in our food supply.

Just as chlorophyll acts as a catalyst in synthesising the various elements associated with plant growth, so too it acts as a catalyst to promote healing within the bodies of animals and man. An example of this we may notice in domesticated animals who when sick will instinctively eat green grass. It is important that some green leafy vegetables, herbs or grasses be eaten daily to maintain health and well being.

Chlorophyll found in the liquid flowing through the veins in green leaves, can be regarded as the green blood of plants, supplying nutrients to the plant cells, just as human blood flows in our veins, supplying the body's needs. Interestingly, chlorophyll is very similar in chemical composition to human blood, with the chlorophyll molecule closely resembling the haemin molecule found in the red corpuscles of the blood. The only difference in these molecules is that chlorophyll contains magnesium as its central atom, while haemoglobin contains iron in the correlating position. So close is the relationship that in research, when chlorophyll is fed to anaemic animals, normal red blood cells are quickly restored. This similarity renders chlorophyll extremely amenable to the human system.

A daily intake of fresh chlorophyll filled leaves can energise the body and keep it functioning well by supplying a rich natural source of protein, carbohydrates, minerals and vitamins. Considerable research has been done which shows chlorophyll to be a tremendous blood-building element, to actually rejuvenate old cells, promote the growth of new cells, provide favourable intestinal flora in the bowel and aid regular bowel elimination, aid circulation, clean the body of toxins and eliminate many diseases.

All food on our table is made possible through chlorophyll, whether it is a loaf of bread, sugar, vegetables, fruit, milk, eggs or meat. Everything living on earth depends on chlorophyll.

In Australia most people limit their source of greens to peas, beans, cabbage and lettuce, with most meals being cooked. However, millions of people in other nations have a wide range of green vegetables, many of which have extremely high nutritional value. By growing these plants in our back yards, or even in limited areas in flats or units, we can have a tremendous source of fresh nutritional green leaves. These leaves can be picked as required daily, just before serving or cooking which means they will be rich in nutrients. This is important because some elements (particularly vitamin C) are soon lost once vegetables are picked.

RICH SOURCES OF CHLOROPHYLL

Silverbeet

A relation of spinach, rich in vitamin C and a useful source of iron. This vegetable can be eaten raw in salads or lightly

cooked. Seedlings of these plants are readily available in small punnets at most plant nurseries.

Broccoli

A delicious green vegetable, rich in fibre, calcium and iron, and needs only minimum cooking. After the main head has been picked, the plant develops small side heads which can be picked again and again.

Cress

A remarkably quick growing and welcome addition to salads, sandwiches and savouries. Cress is easy to grow in any shaded position and it is ready to use within weeks of sowing. It has an exceptionally high vitamin content, especially vitamin C, making it a good illness preventative. It is also high in vitamins A, B1, B2, E, protein and many minerals.

Comfrey

A hardy perennial, extremely rich in chlorophyll, vitamins A, B, C, E and also B12 (rare in plants), potash, calcium, iron, magnesium, sodium, lime, fluorine, chlorine, and iodine. Young leaves can be finely chopped for salads, sandwiches or as a steamed vegetable.

Garlic, Onion Chives, Shallot Tops

These can be a rich source of chlorophyll, in salads, cooked dishes, or as a garnish. Their health giving benefits are many, far too many to list here.

Alfalfa

This perennial legume is an amazing source of chlorophyll, protein, vitamins and minerals. It is particularly rich in vitamins B, C, D, E, G, K and U. Plant a few seeds in the garden or in a high styrofoam box, and cut the green top often with scissors for salads or sandwiches, or the seeds may be eaten as sprouts.

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HOME BUILDING UP NORTH

by Roy Wallace, Kuraby, Qld.

When designing a home you should list the things that you wish to achieve. For most people, the principal aim would probably be to save unnecessary expense and still gain the greatest degree of comfort. Your area has much to do with how you design your home. The particular site may affect the outcome of the plans, too, so do *not* draw up your plans before you buy your land.

I live in Queensland and I have found that a rectangular house should have its narrow ends facing east and west. The best parts of a house in this climate are almost always the north and the east, so put your kitchen and living rooms in these areas and the bedrooms and bathroom at the western end. On winter mornings in Queensland the warmest part of the house will be the north-east after the sun has risen: in eastern Australia we get cold westerly winds in winter, and the north-east is usually protected from these winds. In the summertime the sun rises a little south of east and sets a little south of west, and this is a further reason to have main living areas away from the southern or western walls or areas. It is better to have the living area and kitchen in the best part of the house. You may argue that if you are sick you want the best part of the house for your bedroom. My reply is: if you have your kitchen and living area in the worst part of the house you will be sick in your lovely bedroom more often.

There is a standard type of three-bedroom house which is very common and sensibly designed in that, for the size of the house, as much useful area as possible is gained. This standard Australian home (they are being built everywhere) has its three bedrooms grouped around the bathroom and possibly with a carport somewhere if it is a low-set house. If you choose this type of house, you are better off (in this Queensland climate and possibly in NSW also) if you can select a site that will take this house running east and west. Remember always to put insulation in the southern and western walls.

There are many factors regarding your block that can govern what you will build. Do you have a steep sloping block? Do you have sandstone on the property? Do you have any millable timber? If you can get a steep site cheaply and ready-mixed or self-mixed concrete is a proposition financially, a house dug into the hillside (at the top of the hill) could be a good idea as long as you have a water supply other than run-off from your roof. In eastern Australia this house should face the north or the east. I don't know much about this type of house but I believe that designs are available. I am not going to talk about mudbricks. I think they are good, but there is plenty of information available for them, and I have no personal experience of using them.

If you decide on a concrete floor, seek the advice of a tradesman who knows the area. Personally, if I use a concrete floor I always bear in mind the problems of seepage or moisture that may come through the floor in the course of time. Your local authority will require 5 cm (2 in) of sand under a visqueen (plastic) membrane directly under the concrete. This is usually good enough but if you are in a poorly drained area put some loose gravel or stones for as

much depth as you can afford under the sand; 10 cm (4 in) would be enough.

Be very careful when pouring the concrete not to puncture the visqueen with tools. The visqueen also performs the function of keeping the moisture (and cement) up out of the sand, making stronger concrete which won't go off so quickly. So be careful to make a watertight seal by taping the joins of the visqueen. Do not have the concrete too wet or it will be honeycombed with air when set.

I heard of a case in Brisbane many years ago where an industrial floor had to be dug up six weeks after it was poured. The plastic was eaten by white ants all over. What do you do? Like everyone else you will get the base sprayed against white ants; hopefully the treatment will not leach out in less than twenty years. I guess you want your house to last longer than twenty years, so the better the drainage is under the floor the longer the poison will last on top of the sand under the floor. To prevent hair cracks in the concrete pour it all within a few hours. Also tie the steel reinforcement together at the laps at every square. The money spent on a good reputable tradesman when pouring the slab of your house will more than pay off.

I usually find a concrete slab is cheaper but if you are in bad white ant country think about it well before you go ahead. White ants can open up a hair crack in concrete with the acid in their head and come in and eat all of your furniture, as well as the moulding on the walls, and the walls themselves if they are timber. Cypress pine is readily available and resistant to white ants and borers. The price of it is comparable with hardwood (if not a little cheaper in some places). A word of warning: do not buy cypress-pine timber until you are ready to use it. Then cover it with a roof and walls as soon as possible or it will twist, bend and become very dry to work and split too easily. Use thinner nails than you would for hardwood.

You might well ask, 'What is the perfect way to build to prevent white ants entering a house?' White ants cannot get through galvanised iron. They can get over it. So you must inspect all ant caps regularly to see if any white ants have built a tunnel over them and are in your house. The answer to the question is therefore, 'Build so that you can inspect all of the ant caps reasonably easily.' This means you need a building with a timber floor or a suspended concrete floor, on stumps or walls of concrete, timber, steel or brick. If you build this way and make a downstairs and upstairs, make downstairs all brick, concrete or stone with all of the door frames steel and the windows aluminium or steel. Then be careful to watch continually any furniture that you put downstairs. Also make the stairs with steel stringers. Don't have any timber skirtings or architraves downstairs. I would predict that in twenty years' time there will be large numbers of pest exterminators working hard on those brick-veneer and timber-on-slab homes in south-east Queensland.

Suppose you settle on a slab of concrete for a floor, block walls and a truss roof with corrugated iron. After you build the outside walls clean off the floor and set out your timber trusses on the floor. (You can make them yourself if you submit an engineered drawing and specifications to your local

authority.) Usually you will find that 100 x 38 mm (4 x 1½ in) top chords (rafters), 75 x 38 mm (3 x 1½ in) bottom chords and 75 x 38 mm (3 x 1½ in) struts are required. If the pitch is too low (too flat), heavier timber is required: 12½° or 15° makes an ideal roof for timber trusses over 7 m (23 ft). Galvanised steel plates approx. 16 gauge are cut with a guillotine and drilled in the appropriate places to receive screws or nails and are placed over the joins in the timber. I have found that Timber Engineering Co. Pty Ltd make a good range of steel plates suitable for roof truss-making. You would have to purchase them through your local hardware. Timber Engineering's drawings should be acceptable to your local authority; ask through your hardware. If you cannot get cheap timber forget the idea of making your own roof trusses, unless the freight of the roof trusses is too great in relation to the same amount of timber delivered to your locality.

When the truss is laid out on the floor you drill 9 mm or 12 mm (⅜ in or ½ in) holes in the concrete about 38 mm (1½ in) away from the chords in order to place steel pins in them to wedge off to hold the timber in place. The wedges are cut out of timber. When the steel plates are applied to one side the wedges are released to allow the truss to be turned over and the plates applied to the other side. Many years ago we used masonite gussets and clouts in this fashion.

When you come to windows may I suggest you use second-hand timber casements — if you can get a whole set to match right through the house. Hardwood sills and frames will be fairly safe against the white ants if you are up off the floor with the sill. The parts of the sill and frames that are not exposed could be painted with creosote or some other white

ant protection. I say second-hand windows because I guess that many people are scratching for money. If you can afford new aluminium casements, so much the better. Casements give better ventilation than sliding glass windows. They will catch a breeze that is blowing parallel to your outside wall. Sliding windows will not do this. In this climate we need to keep cool with that extra breeze now and then. Believe me, it does not take much paint and time to paint the casements in an average home. I like the look of painted timber windows — that extra colour to break the colour of the brickwork or blockwork is well worth it.

Well, these are just a few thoughts on designing and building houses, formulated over many years as a carpenter and builder. I hope they'll be of help to some readers in northern areas.

PLUCKING DUCKS.

by Graham Barlow, New Farm, Qld.

I have found the following methods quite satisfactory for removing feathers from ducks and hope they are of some benefit to other readers who have had problems with this chore.

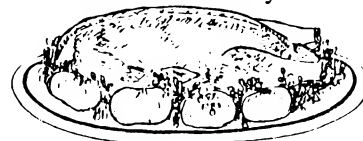
Have ready two drums or other containers of about 20 lt (5 gal), one with cold water, the other heated to 70°C (158°F) for ducks and up to 75°C (167°F) for large drakes. A good dash of dishwashing detergent in the hot water is necessary to allow the water to penetrate under the feathers. The same can be done with chooks at 65°C (149°F) but no detergent is needed.

Chop off the head and as soon as the blood has stopped running, plunge the bird into the hot water for ½ min. A stick is handy to ruffle the feathers up and ensure the water gets under the feathers and wings. Remove from hot water and plunge into cold water immediately for the same length of time. This is necessary to stop the flesh from cooking, which happens if the water is too hot. If not hot enough the feathers don't come off as easily. If this happens put in hot water again. Time the ½ min with a watch — it can be more but not less if the water is hot enough.

Hang the bird up at a convenient height and pull feathers out. They should come out very easily with rubbing and pulling. When finished cut between legs and pull out the intestines, then run water through to wash out blood etc.

Another way is to skin them the same as you would a rabbit. Kill them by placing foot on head and quickly pulling bird upwards to break neck. As soon as it stops moving cut skin around and down legs and work fingers under skin, between skin and flesh. Continue working fingers under skin till you can hold enough skin to pull over the body, then over wings and neck as far as you can. Cut around wings and through neck. Feathers, wings, skin and head all come away in one piece. This is best done while bird is still warm. Cut around vent and up between legs and clean out as before.

It is advisable to store the birds for two days before killing. Allow access to water only. This ensures an empty gut and is much cleaner and not so smelly. This way is much quicker and cleaner. All you have to do then is cook your Christmas dinner.



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Down home on the farm...

by Megg Miller



It rained here this week, cool wet rain that refreshed tired plants and soothed the thirsty earth. Weeks had passed since we last enjoyed a shower, weeks that included one of the hottest Februarys on record. The rain has broken this dry spell and brought us all a sense of relief and a reassurance that autumn is but around the corner. It's been hot, not shatteringly so as with days of 40 plus but rather the sort of heat that goes on day after day and gradually saps one's drive and vitality. I've found it frustrating as there are jobs everywhere screaming out to be done but by the time I've fed and watered the poultry of a night I'm hot and tired and only too pleased to put tasks off for another day.

Living in a dry area as we do, water becomes a problem each summer. We've had many years to develop water sense and certainly use the precious commodity sparingly but still worry that we won't have enough. If it's not the dam running low it will be the houestanks, though fortunately not both at the same time. This year the level in our houestanks has been decreasing relentlessly. The needs of two adults and a teenager plus waterers from the poultry brooder sheds have stretched resources to their limits and for the first time in fifteen years we've run out of water. Mind you, we've been very close other years but have been saved by a good fall of rain. This time we've had to watch the pressure become weaker and listen to the empty echo in the tank become deeper. There were a few rings left, enough for a week or ten days if we were careful, and then we had some callers unfamiliar with country ways. Whilst we were up the paddock talking turkey to one of them the others wandered off and stood under the tap to cool down, unwittingly running it dry. This was Friday night of course — don't all catastrophes happen when shops and services are closed down — and we had to wait four days before a tanker could come out and fill it. We survived those days with water bucketed up from an old underground storage tank in the garden but it was full of floaters, tasted awful and definitely had to be labelled 'emergency water only'. It was wonderful to turn on the taps again and find water running and to be able to drink it without chewing. I realised just how tough those couple of days were when the following morning I found a hen busily dustbathing in a patch of damp right in the middle of our path. The tanker hose had left some overflow on the path and it was obvious we were not the only ones who missed our baths!

The onset of autumn marks not only the beginning of cooler weather but also the end of the poultry breeding season, a time much looked forward to by both David and myself as we've had six months of religiously checking the incubator five or six times a day. By the end of January fertility has usually dropped and hatchability is poor so it's hardly worth setting any of the eggs from that time onwards unless numbers are low in a particular breed. I have two breeds on

the rare list I'm trying to establish and I've had to set every egg they have produced. And because they are rare and I'm desperate to build up numbers, problems have beset them and not any of the common farmyard breeds. The Salmon Faverolles were a present from my workmates and are a lovely old French breed that have a beard and leg feathers, whilst the Naked Necks originated in Transylvania and are distinguished by their red featherless necks. Well, the wily fox slipped in and stole one of the two Fav pullets and the heat killed both roosters and a prize Naked Neck pullet, thus ending breeding for the season. I have a few chicks from each breed, treated like royalty, so when our new puppy sampled a chick one night I nearly tossed the whole business in. I ranted and raved and exhausted myself, and David disciplined the little fellow but he didn't even look repentant. There are good years and bad years and I guess one has to be philosophical about it, especially as some of my other breeds have produced lovely specimens. However I'm sure there are many readers with livestock they highly prize who share my lament that it is always the good ones that get caught in the fence or fall into the bucket. We can but keep trying!

Because we're moving this year — yes, we're still moving, it just takes us a few years to get organised — I haven't bred hordes of poultry like other years and I've drastically cut back the numbers of breeding stock, with the result that there are fewer birds running around. We notice the difference but to others there is still one heck of a lot of birds, and a recent visitor staggered away saying it was a bit like visiting Ma and Pa Kettle's. I'm not sure it was meant to be a compliment and have to grudgingly acknowledge that the place is a trifle untidy by some standards and a bit shabby too, and there are a lot of birds, but Ma and Pa Kettle's? No wonder a few of them refer to us as the Funny Farm in the local town!

With school back for a few weeks now we've just had Suni home for half term, a longer weekend than the usual two days and one we all appreciate. She came home with a sore throat and has had to spend the time in bed, worn out and run down — from all the work she says, but we say it's from all the skylarking. I'll make her some of my specialities, I thought, food that will cheer her up. I put soup on and forgot about it, burning it black and then following up next morning with the toast. I forgot about the scones too, but we saved them. I'm not sure if I've lost my touch or just need a little more practice — Suni assures me it's the latter — but I'm tired of scouring saucepans. The obvious answer is to get David or Suni to cook and when I triumphantly announced it to them they ganged up on me and said 'No, we've got the answer for you, a timer'. I can just imagine my new timer ringing its head off in the kitchen whilst I'm up the paddock, out of earshot and in another world. I think they will be taking a turn at the stove.

Recent Releases

On this page we present information about newly published books that we feel will interest readers, with details of prices and publishers. We no longer distribute books for other publishers so if you're interested in buying any of the books described here, please order them through your nearest bookstore.

REFLEXOLOGY: A WAY TO BETTER HEALTH — Nicola Hall.

With increasing interest in alternative medicine, reflexology is being recognised as a valuable treatment for a wide range of disorders. This handbook explains the why and how of this ancient massage therapy, with detailed diagrams showing which areas of the feet and hands correspond to particular parts of the body. Later chapters describe reflexology techniques and how they work to correct imbalances, improve circulation and reduce tension. Very useful for anyone wanting to learn the basics of treatment by reflexology.
P/b, 186 pp, UK, Pan Books. RRP \$12.99.

THE VEGAN HEALTH PLAN — Amanda Sweet.

Subtitled *A Practical Guide to Healthy Living*, this book begins with a discussion of the philosophy of veganism, then gives a very comprehensive explanation of dietary requirements and how these can be met by those who choose not to eat animal products. Any unfamiliar foods or ingredients are described and their uses explained, and the book includes a wide selection of delectable sounding recipes for all types of vegan dishes, with an index for quick reference. Invaluable information for someone considering making the change to a vegan diet, or just wishing to incorporate some of these ideas into their lifestyle.
P/b, 302 pp, UK, Arlington Books. Distributed by J M Dent P/L. RRP \$16.95.

DOROTHY HALL'S HERBAL MEDICINE — Dorothy Hall.

Written with Dorothy Hall's usual flair and energy, this book reflects her many years of studying and prescribing herbal remedies for a wide variety of common ailments. She warns of the dangers of 'a little knowledge' and stresses the need to correctly identify plants and to consult a properly trained herbalist rather than self-prescribing. The bulk of the book is then devoted to descriptions of the various herbs — their origins, their uses and effects, and the personality types that most need their particular qualities. This all makes enjoyable reading, as well as providing invaluable information for anyone interested in this aspect of alternative medicine.
P/b, 327 pp, Aust, Lothian Books. RRP \$19.95.

ORGANIC CONTROL OF HOUSEHOLD PESTS — Jackie French.

If you're concerned about longterm harmful effects of conventional pest control methods, this book is just what you need. It describes a wide variety of ways in which you can reduce or avoid pest problems in the house and garden, using herbal and other organic preparations which will not damage your environment. Recipes are provided for making your own sprays, baits and repellents, and the book also includes a detailed listing of helpful plants and how to grow and use them for responsible pest control. The material is mainly concerned with pests encountered in the house — on plants, pets and people — although some information also deals with control of outdoor problems.
P/b, 126 pp, Aust, Aird Books. RRP \$13.95.

VEGETABLES FOR SMALL GARDENS AND CONTAINERS IN AUSTRALIA AND NEW ZEALAND — Peter de Vaus.

A completely updated edition of this popular gardening book, it should appeal to all those who have only limited room in which to garden. Chapters cover topics from planning and soil preparation to harvest and storage, and there is a comprehensive listing of common and unusual vegetables suitable for cultivation in small spaces. Advice on dealing with pests and diseases includes natural as well as chemical controls, and sowing guides cover all main climatic zones in Australia and New Zealand, making this a useful reference for both beginners and experienced gardeners.
H/b, 153 pp, Aust, Hyland House Publishing P/L. Distributed by Lothian Books. RRP \$24.95.

DESIGN AND CONSTRUCTION OF SMALL EARTH DAMS — K D Nelson.

This book has been around for some years, but the information it contains should still be of great value to anyone needing to improve the water supply on their land by building a dam. It covers all phases, from calculation of your water needs and selection of a suitable site, through design of an appropriate storage to actual construction and maintenance of the dam itself. There are clear diagrams and photographs to illustrate each step and show alternative approaches, as well as sample calculations to help you work out your own figures. It should help you avoid many of the problems often associated with farm dams.
P/b, 116 pp, Aust, Inkata Press. RRP \$18.00.

YEAST-FREE AND HEALTHY — R Turner & E Simonsen.

Though some doctors now accept that Candida infection can be the cause of wide-ranging and chronic health problems, it is often difficult to gain longterm improvement by conventional means. This book outlines an approach to the problem that concentrates on the role of a yeast-free diet to complement, not replace, other therapies. After a brief discussion of the causes and symptoms of Candida infection, the authors go on to describe the purpose and structure of the basic yeast-free diet and to present a range of recipes to please your palate and maintain an interesting variety in a restricted diet. The tone is positive and should encourage those who suffer from this problem to take a fresh approach to their treatment and begin to enjoy life again.
P/b, 132 pp, Aust, Viking O'Neil/Penguin. RRP \$12.95.

BEADS! — Stefany Tomalin.

From her long involvement in this decorative craft and her obvious love of collecting and using beads of all types, the author presents a fascinating view of these often overlooked objects — historical beads, those from different countries, handmade beads, gemstones, found objects — and their many and varied uses. Learn how to make your own beads, and how to incorporate them into wonderful jewellery and decorative fringes, tassels and other forms of beadwork. If you're patient and painstaking, this may be the craft — and the book — for you. Beautifully illustrated.
H/b, 128 pp, Aust, Greenhouse Publications. RRP \$27.95.

BEEKEEPING IN AUSTRALIA — Fred Bailey.

A recent reprint of a standard reference, this book is invaluable for beginners to beekeeping. Whether you want to have a couple of hives of honey for your own use or plan to set up as a commercial producer, the basic information it contains should introduce you to all aspects of bee care and honey production. After describing the various types of bees, their life cycle and hive requirements, the author divides the rest of the book into sections, each dealing with a separate stage of the year's work. He gives sound, practical advice based on many years of beekeeping experience and covers swarming, requeening, honey extraction, pests and diseases as well as basic hive maintenance. A list of beekeeping associations and useful references is also included.
H/b, 144 pp, Aust, Heinemann/Paul Hamlyn. RRP \$18.95.

THE WOOD WORKER'S MANUAL — Gosta Vass.

Step-by-step instructions are given here for a range of projects, varying in difficulty from a simple bread board or boot jack to more complicated constructions like a chest of drawers or bookcase. For each project the required tools and materials are specified, although as this is an English book you may need to substitute other types of wood for those recommended by the author. Every step or process is clearly explained and illustrated so that even beginner woodworkers should be able to enjoy the satisfaction of creating their own toys, furniture and knickknacks.
P/b, 159 pp, UK, Macdonald Orbis/Macmillan. RRP \$19.95.

ROUND THE MARKET PLACE

We hope you enjoy this feature introducing new products relevant to readers' lifestyles and interests.

INSECTICIDES

Multicrop have a useful range of sprays available for organic gardeners. The Eucalyptus Insecticide should be used after sunset and will eradicate nocturnal pests such as earwigs and cockroaches. Don't forget to lift all pots and rocks when you are spraying to ensure that all insects are covered. The Pyrethrum Insecticide kills caterpillars, aphids, thrips and flies. The All Season Oil is effective in the control of white fly, spider mites and thrips. Scale insects are hard to eliminate, but the All Season Oil will keep the numbers of these pests down. The Garlic Insecticide repels aphids, thrips, slugs, white cabbage moth and codling moth.

Kelp Commodities, 47 Kambora Ave, DAVIDSON 2085.

Ph: 02-451-9433.

RESOURCE GUIDE

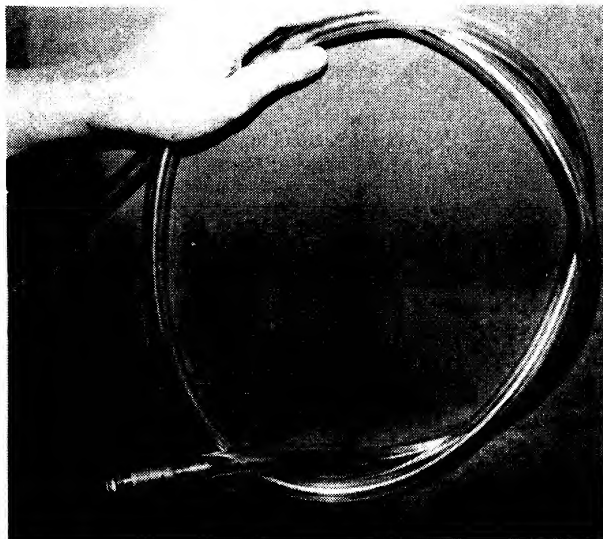
A Resource Guide for Sustainable Agriculture has been compiled by Christine Owen and the Riverina Outreach Centre. Areas covered include biological control, fish, pesticides, weed management, and wildlife as well as the more obvious topics like soils, trees and water management. Alternative systems of agriculture such as biodynamics, permaculture and keyline are also included in this listing of available audio-visual aids, printed materials and helpful organisations. This book should prove invaluable to farmers, students and teachers alike, and is free on request.

Outreach Centre, TAFE, PO Box 2315, SOUTH WAGGA 2650.

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Super Syphon, 6 Matcham St, BUXTON 2571.

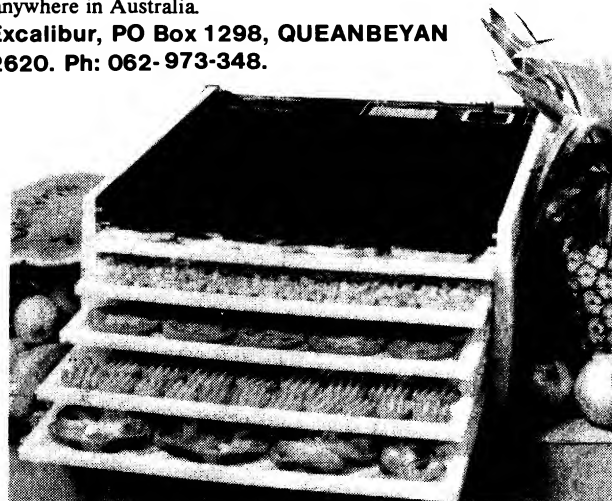


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Excalibur, PO Box 1298, QUEANBEYAN 2620. Ph: 062- 973-348.



The Excalibur Dehydrator is versatile enough for all your food drying needs.

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The unit, available from BP Solar's 105 dealers, retails for between \$3474 and \$7493. It comes with a one year guarantee on the complete system and a five year guarantee on the solar module.

BP Solar, PO Box 511, BROOKVALE 2100. Ph: 02-938-5111.

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UPPER EDEN CREEK near Kyogle NSW 240 ac freehold, rainforest regrowth, slopes and valley, crk access, send SAE to Taeni, BARKERS VALE 2474. \$49,000. Ph: 066-897-231.

NIMBIN — PICTURESQUE 5 AC back on market, rustic cabin, s/c stove, hot shower/bath, gas fridge/cooker, water pump, r/w tank, no power, phone, verandah overlooks creek with tortoises, platypi, wildlife abounds, fruit/nut trees, natives, undulating grasslands. \$42,000. Ph: 066-218-824.

LEGUME — NSW/QLD border town, nestled in Killarney Hills, 1½ ac cnr block on bitumen, shed, dam, fences, yards, power to boundary, phone avail. 500 m to shop, fuel, primary school, school bus. Bunya pines line one fence, high rainfall area. 2½ hrs drive Brisbane. \$10,000. Ph: 076-355-497 AH, 076-317-503 BH.

**DEADLINES: GR 73 — APRIL 21ST
GR 74 — JUNE 23RD**

EBOR NTH NSW secluded mtn retreat, overlooking NE Nat Pk, ¼ share, 250 ac, rainforest, crks, waterfalls, \$16,500. Ph: 066-572-602.

LARGE OWNER BUILT mud/river rock/timber home on 100 ac Rocky Hall sth coast, gravity fed 20,000 gal water tank, 4 y.o orchard, gardens, perennials, herbs, elec fenced, sheds, crk, good access, phone, solar elec, backs onto Coolangubra State Forest. \$70,000. Ph: 02-997-3859.

NTH NSW NYMBOIDA white water country, west red cedar home on 40 ha close to school, picturesque views, power, phone. \$85,000. Further details ph: 066-494-126.

A LITTLE PIECE OF PARADISE! sit between Mudgee and Cassilis, 112 ac gently undulating land, mainly sandy loam to basalt, comfortable 3 b/r cottage, power and phone connected. Perm crk with natural bushland, 5 dams, good fences, est vegetable gardens and orchard, school bus at gate. \$85,000. Ph: 063-761-189.

ASHFORD NORTH NSW large block can subdivide, heart of village, cnr block, clean, flat. Will exchange something similar value. \$8000 neg. Write D V Price, Box 103, WARIALDA 2402. Ph: 067-291-170.

QUEENSLAND

CHEAP 4 B/R HOUSE 4 ac Qld Darling Downs could operate as shop and road-side garage, ample water and stables, \$32,000. PO Box 724, INVERELL 2360. Ph: 067-248-215.

FOR LEASE OR SALE — 160 ac 30 min from Townsville, capital of the tropical nth. Property has crk, spring, 2 dams, 2 bores, power, phone, fully fenced, mostly cleared, excellent cattle fattening or tropical fruit property, long lease with option to buy, % of lease fee refunded upon purchase and vendor finance available, lease at \$120 pw or buy at \$750 per acre. Further info write: Mark and Rhonda, 19 Ackerton St, MAYFIELD 2304. Ph: 049-601-737.

WOLVI — between Noosa, Fraser Is, Gympie, 30 ac, ½ cleared crk flat, ½ timbered hill, perm crk, log style cabin with verandah, gas and wood fire, stoves, gas fridge, generators, solar panel, inverter. \$50,000 neg. Ph: 03-752-2139 AH.

STH EAST QLD 26 ac for sale, ½ share of 80 ac, timbered, views, orchard and dam, close to primary school and large town. \$15,000 neg. Ph: 071-833-887.

40 AC AT WANORA SE Qld half way between Ipswich and Wivenhoe Dam, well built 3 b/r block home, s/c stove, verandahs, power, phone, rural water, fruit trees, 3 dams, goat netting on all fencing, sheds and yards. \$130,000. Ph: 075-866-225.

129.499 HA Condamine River frontage 40 ha cultivation, chemical free, ideal potatoes, lucerne, 3 sheds, 2 concrete flrs, power, pig pens, fowl yards, cattle yards, fenced, 3 paddocks, 2 lge lagoons, very secluded area, 18 km SE Chinchilla, very good fishing spot, plenty of lovely coolibah trees, potential to irrigate. \$150,000. Ph: 074-627-357 AH.

GYMPIE — 57 AC freehold hilly bushland, small A-frame house, state forest 3 sides, phone, concrete tank, wood stove, hot water, perm dam, 11 km sth of Gympie. \$65,000. Ph: 02-699-4249.

30 AC BUSHLAND Sth East Qld, \$6900 ono. Ph: 066-423-927.

GYMPIE 30 AC perm crk, fully fenced, 2 dams, spring fed well, fully s/c mudbrick shed, solar power, open fire place, phone, s/c stove, 2 sheds, cow bail, bitumen rd, school bus at gate, 20 mins from Gympie. \$45,000. Ph: 071-867-105.

CLIFTON DARLING DOWNS 63 ac secluded agricultural land, timbered, fenced, solid cabin, pot belly, water tanks, lge dam, u/ground spring, easy access. \$33,000. Lot 5 Benson Rd, MT NEBO 4520. Ph: 07-289-8132.

SELL 40 AC WONDAI SHIRE, Qld. Improvements — half fenced, new fencing, concrete tank, toilet, shower, dam, shed, caravan, bargain \$13,000. Ph: 07-398-3897.

29 AC MAINLY IRONBARK FOREST secluded 3 b/r house, high-set, concreted under, sml dam, mains water, elec, 30 km from Hervey Bay, 5 km from centre of Maryborough, fronts 2 rds. \$90,000 neg. Ph: 071-221-374.

RURAL LIVING with all the useful advantages of city life — 3 b/r house on ¼ ac block in country town 1½ hrs Toowoomba. Newly renovated, rewired, painted, screened, fireplace, 3 sheds, fernhouse, fowlyard, town power, sewerage and water, rainwater, fruit trees, lge garden, shops, doctor, hospital, kindergarten, schools, tennis, squash crts, swimming pool, parks, all facilities within 800 m, ideal for raising family or retiring. \$38,000 ono. Ph: 076-931-620 or write Silcock, C/- Jandowae State School, 30 Jimbour St, JANDOWAE 4410.

WITHCOTT RETREAT, 3 kms east Toowoomba, 6 ac, fenced, dams/tanks, small orchard, 3 b/r brick home, comfortable lge rooms, 3 car l/up garage, sheds, ideal hobbyist, excell buy. \$99,500. Ph: 076-351-920 or 303-130.

1¼ COUNTRY AC (BAUPLE) in the fruit bowl area of Qld, ½ hr drive to either Gympie or Maryborough, close to Sunshine coast, 2½ hr to Brisbane, good soil, flood free, partially cleared, lovely views, phone avail, no town water or power, illness necessitates sale, come see or photo avail. \$12,750. Ph: 071-292-470 or write to W. Meixner, PO Box 9, TIARO 4650.

MIRIAM VALE — central Qld coast, 15 ac and 3 b/r solid brick house, passive solar construction, cathedral pine ceilings, Solarhart, septic, phone, Lister diesel generator and 12V mains power avail. Double storey shed/studio, paddocks, yards all fenced, dams, bore, freehold title, school bus. 6 km to town, 30 mins beach, 45 mins to Gladstone, suit turf/stud/nursery/kennels. Rates \$150 pa. \$75,000. Ph: 02-818-4704.

40 AC BUSH good water on Agnes Water Rd, temp dwellings no problem. \$27,000. Also absolute beachfront allotment Clairview (where Bruce Highway meets the ocean sth of Sarina), unique, \$28,000. T. Abrook, PO Box 1260, BUNDABERG 4670. ph: 071-729-346.

VICTORIA

STAWELL 40 AC, SEC. phone, building permit, slab, shed liveable, tank, mudbricks, doors, windows, roofing, post beams. \$68,000. Ph: 053-583-546.

GIPPSLAND LICOLA 10 ac natural bush on sealed Tamboritha Rd with building permit. \$30,000. Ph: 051-488-774.

GRASSIFIEDS

PROPERTY FOR SALE

VICTORIA

EAST GIPPSLAND much hard work has gone into this passive solar mudbrick house. (Time and energy needed to bring out full potential of the design.) Sit on 40 ha (100 ac) bush with perm water, 5 ac cleared, beautiful fern gullies, 15 mins to Cape Conran, sml community, shop, state-school, high-school bus passes, frontage Princes Hwy in Cabbage Tree Creek, secluded but not remote. \$140,000. Ph: Helen 051-541-788 BH, 051-581-222 AH.

HOUSE 4 B/R plus family room on 2½ ac, native plants, and very productive fruit and vegetable garden, school bus passes the gate, 2 mls from sml town with craft outlets. \$110,000. Ph: 056-647-237.

CLUNES VIC 6¼ ac attractive land, lightly treed, gently undulating land with seasonal crks, building permit obtainable, 30 mins to Ballarat, close to Melbourne. \$16,000. Ph: 051-942-383.

ANCONA VALLEY — 65 ac, 10 ac cleared, 6 ac paddock with dam, balance clean bush — box, blue gum and peppermint, many orchids. 7.5 sq mudbrick dwelling with bluestone flr, s/c stove and hw, solar power, potbelly, phone and furniture. Perm water from crk, 6000 gal water storage, 40 organic fruit and nut trees on drip irrigation, 10 productive beehives, cottage herb garden, numerous sheds and building materials. Good views and quiet, abundant wildlife, all weather access road, school bus only 5 mins away, SEC avail, prepared house foundations, 5 kva generator, gas fridge, piston pump, transfer pump, all very new. 75 mins to Melbourne. \$87,000 ono. Ph: 057-789-630.

SWIFTS CRK Permabrick home with verandah, 2 b/r plus 2 s/outs, attractive surroundings, crk frontage, perm water, SEC, 1 ac, approx 3 km from township. \$60,000. Ph: 051-526-828.

SOUTH AUSTRALIA

I HAVE a 3 b/r stone house, garage with inspection pit and outbuildings, town water, power and phone, plus block of land, freehold, at Rudall, school bus to Cleave, \$10,000. Ph: 086-282-040 9 am to 5 pm weekdays.

KANGAROO ISLAND ½ ac natural scrub near beach at Sapphiretown. \$8000. Ph: 08-277-8500.

TASMANIA

CORNWALL EAST COAST 3 b/r house, double block, exc condition, quiet rural area, 15 min drive from sunny east coast beaches, 90 min from Launceston. \$25,000. Photos avail. Ph: 003-722-401.

JUST \$85,000 WILL BUY our magnificent 62 ac farm on beautiful Tasman peninsula. only 10 mins to Nubeena and white sandy beaches. Owner built, open plan cedar home, featuring exposed beams, timber ceilings and polished flrs t/out, new Rayburn s/c stove, mains power and phone, ample water storage, spectacular panoramic views from all round sun deck, lge encl organic garden, mixed orchard, 40 ft x 20 ft barn/workshop, extensive aviaries, chook house, wood shed, dam, 2 perm crks plus Fordson major tractor, 2 ploughs, hay mower, muck spreader and spike harrows, all in good condition. Ph: Greg 002-502-370.

ST MARYS colonial cottage on 3 ac overlooking picturesque valley and rivulet, features baltic pine, Kent woodheater, verandah. Northerly aspect, picket fence, nectarine, peach, cherry, apple trees, bush setting, town water, sewerage, power, close to school, shops, beach, main hwy frontage, great craftshop potential. \$37,000. Ph: 002-311-382.

NTH EAST TAS 3b/r Weathertex cottage on 2½ ac, phone, power, town water, lge garage, shed, school bus close. \$29,500. Extra 1 ac block can also be purchased if wanted. S Williams, C/- PO, PIONEER 7264. Ph: 003-542-381.

BEAUTIFUL TASMAN PENINSULA land at Stormlea, 10 mins to Nubeena and Port Arthur, short distance from superb beaches and stunning coastline, 17 ac, small shack, perm spring, exc soil and views of valley, block starts 50 m from council maintained road, elec avail. \$17,500. 50 ac, old style sml cottage in private sheltered valley, elec, perm spring and crk, good rich-grow-anything soil, privacy, established fruit and nut trees around house, remainder pasture and some re-growth, hilly, severance subdivision of further 10 ac possible, great views over Storm Bay and Mt Wellington in the distance from top of block. GR neighbours. \$50,000. These blocks are adjoining but prefer to sell in one lot. \$65,000 neg. Write Gerard and Maxine Allan, RSD 1132, STORMLEA 7184.

WINNALEAH N/E circa 1900 4 b/r Vict house on 1.2 ac, original condition, lge sunny rooms, baltic pine ceilings, picturesque views, sml orchard, rich red soil, 1 km to village, schools, 20 km to beaches. \$45,000. Ph: 003-542-313.

COMMUNITIES

VESPER COMMUNITY CO-OPERATIVE is a group of spiritually minded (not religious) vegetarians (7 households) forming a community based on personal growth, planetary healing and financial self-sufficiency. Now a fully registered land settlement co-operative, we are purchasing 150 ac of beautiful, productive, agricultural and forest country in the foothills of the Vic Alps (120 km east of Melbourne). We are seeking up to 5 more like-minded households prepared to commit spiritual, physical and financial resources towards creating an ideal lifestyle. Financial commitment for settlers involves an initial contribution of \$16,990 by 30/6/89. Non-residential involvement is also possible. For further details contact Danny Spijter, 83 Falls Rd, KALORAMA 3766. Ph: 03-728-4813 or Brian Reed 03-862-2122 w/days.

STH WEST WA. We are establishing a sml (½ or ¼ shares) permaculture/natural farming community on 50 ac 30 mins from Albany and looking for fellow founder members. At the moment we are Sheila, David and our 2 children Rosie 2 yo and Juliet 6 mths. The property is currently mainly pasture and has a dam, a permanent soak and a shed/home with 20,000 gal tank, sep bathrm and WC, kitchen area, SEC and phone, suitable for accommodation while members build. Initially this could be rented (nominal) to prospective members. A ½ share would cost \$35,000. For more info please write David & Sheila, 82 Brunswick Rd, ALBANY 6330.

HIGHLANDS, VIC. Coorabin Co-operative is a new community establishing in the granite hill country 2 hrs nth of Melbourne. Most of the 370 ac is bush with crks, dams and abundant wildlife and adjoins the Switzerland Ranges Flora Reserve. A maximum of 18 households in three clusters is planned. Major interests of members include conservation, co-operation, sustainable human settlement and owner-building. We are now increasing membership from 9 to our limit of 18 shareholdings. Interested people are invited to write for information to Coorabin Co-operative, 7 Shirley Crt, BORONIA 3155. Ph: David Farrow 03-419-1788 (BH). **TWENTY-FIFTH SHARE** in 960 ac, council approved, M/O, sml cottage under construction. \$19,500. Kyogle nth NSW. Ph: David 066-322-370.

SML COMMUNITY on the Bulga Plateau above Taree NSW sells 2 shares, 1 for \$13,500 and 1 with old farmhouse for \$20,000. Private use of 5 ac, our beautiful 420 ac include a lot of forest, permanent crks, swimming holes, pastures and back onto State forest, 16 km west of Elands and 4 km from school bus. Ph: 065-504-570.

YULUNGA — spiritual community project inspired by 'Course in Miracles' emphasising universal one-ness and spiritual growth. (Creative refocussing and rebirthing taught at Yulunga Centre.) Seeks dedicated members motivated to help establish a healing community. Send SAE to Yulunga, BARKERS VALE 2474. Ph: 066-897-231.

DORRIGO — community/company forming, possible 14 residential shares (\$10-15,000) and the intention of providing service to the Coffs Harbour region, through bush and arts education, special care, rainforest products and hostel. Ph: 066-551-338 for details.

10 AC SHARE (one twentieth) 1200 ac, one room mudbrick shack, many est trees incl fruits and nuts, fenced, vegetable garden with gravity water, windmill on well, clear flats, suit crops, sheltered aspect bordering seasonal crk, property is 80 km west Maryborough, Qld. Price neg. Chris Hoare, Rose Rd, TUNTABLE CREEK 2480. Ph: 066-891-478.

'WYTALIBA' — in Gibraltar Range. Delightful split-level timber home on 5 ac of lightly timbered hill site with river frontage and panoramic mtn views, solar power, HWS, fuel stove, 3000 gal rainwater tank, 1000 gal tank and pump for unlimited river water, friendly community of 120 adults plus children on 3500 ac, M/O, own school nearby, bus service to Glen Innes. \$35,000 (includes 1 share in Unit Trust). Leila Keenan, 'Wyaliba', Old Grafton Rd, GLEN INNES 2370.

100 AC NTH NSW beautiful bush country on Clarence River, crks, abundant wildlife, part of growing community. PO Box 63, TABULAM 2470.

QUARTER SHARE 100 ac nth Nimbin with octagonal house, dams, fruit trees, great views facing nth east, \$29,000, willing to rent \$20 pw until decision to buy. Ph: 02-344-8978.

BLACKHORSE CREEK, KYOGLE, 1/25 share, 970 ac, \$8500. Peddie Cafarella, C/- PO, MIRRIWINNI 4871. Ph: 070-676-292.

TREEHOUSE IN RAINFOREST, NW Tas, 45 ft up myrtle tree, kitchen, bedroom, loft, dining, verandah, 60 ft bridge, views, sixteenth share 200 ac. \$15,000. Ph: 066-552-208.

GRASSIFIEDS

COMMUNITIES

RAINFOREST RETREAT, nth west Tas. Secluded cosy cottage set in lush rainforest, crk, mtn views, wild river, northerly aspect, on ¼ share 200 ac, 1 hr Ulverstone. Phone avail. Incl s/c stove, wood heater. Waste plumbing and lining unfinished. \$43,000. Ph: 066-552-208.

NIMBIN NORTHERN NSW, 2-8 ac shares surveyed approved on idyllic 280 ac community, water access to ea, swimming holes, rainforest areas, environmentally based. \$13,500. Details — Mark Taranto, C/- PO NIMBIN 2480 or message Neighbourhood Centre Ph: 066-891-492.

PROPERTY WANTED

I WANT somewhere to live — anything considered around \$4000. Land — run down place — anything. Ph: 02-635-3691 or write 25 Church Ave, WESTMEAD 2145.

SML ACREAGE Central Coast NSW with dwelling. Contact Phil Watkins, 26 Brooklands Rd, GLENBROOK 2773. Ph: 047-392-118.

HARDWORKING QUIET LADY 29 yo working in Kiama requires farmhouse Jamberoo to Gerringong, am nature loving, peaceful and will respect your property, need long lease for 2 children's security. Write 1 Stringybark Pl, ALBION PARK RAIL, 2527.

TWO PEOPLE STRUGGLING to get out of rat race would like freehold livable home with sml acreage or lge block near sea, Kangaroo Island or lower SE SA, up to \$30,000. Ph: 08-252-1258.

WANTED — LISMORE AREA, ideally within 30 mins travel to town, ac and house to about \$100,000 or land only for smaller sum. Ph: Rod or Fay 066-293-348.

SECLUDED LAND preferably with crk to \$50,000 Upper Hunter area, would like to have a balance between timber and pasture. Ph: 049-635-090 anytime.

MOUNTAIN BLOCK WANTED, NE Vic, Omeo area. Private buyer. Box 96A, Melbourne 3001.

ACREAGE WANTED — coastal nth Qld, prefer fertile soil, partially forested, elec, perm water, humble dwelling optional. Ph: 079-590-493.

FERTILE LAND — min 5 ac, prefer water views with water on property, with or without dwelling. 1st choice — Tas, but will consider anywhere. Lyn & Pete Telfer, 7/6 Macleay St, POTTS POINT 2011. Ph: 02-356-2987.

BUSINESS FOR SALE

YOUR OWN BUSINESS — travelling to car shows — 2/3 months work yearly, will keep GR family independent, selling because doing other business and can't be in two places at once. Incl stock \$200,000 retail. Sell \$25,000 but prefer swap for GR type property, Qld/NSW. All offers considered. Ph: 047-825-115 days, 047-588-042 nights. Ward Greene, Box 96, HAZELBROOK 2779.

HOME BASED BUSINESS. Established gourmet natural salad dressings, selling exceptionally well in Perth. A real winner, can earn \$1000 pw. Looking for outlets in Sydney/Melbourne/Brisbane/Adelaide & Tas. \$5000. For further information Ph: 09-383-1682 or write: Nature's Cuisine, 95 Broome St, COTTESLOE 6011.

MOVE TO NTH NSW with guaranteed income. Established general store serving district NW of Lismore. Agents for Commonwealth Bank and agents for Elgas. Nearest shop 25 km. Located at Billen Cliffs, a New Age village community with strata title in April. Good potential to expand, books avail. Shop comes with 2 b/r house and 2 ac, very good long term invest. Price \$89,000 ono. Ph: 066-337-155.

HOLIDAYS

BED AND BREAKFAST, 23 kms nth Grafton, full home-grown breakfast, farm animals, bird watching, walking, handy to coast, many local beauty spots. Ph: 066-447-755.

FORSTER — TAREE, escape to the beautiful mid-north coast. Very private, luxury family cottage on 1000 ac pastoral and forest retreat. All mod cons. Linen, swimming pool, tennis, farm walks. 20 mins to beach. \$500/\$300 on/off season per week or \$80/\$55 per night. Unaccompanied children also catered for in family homestead. \$50/day incl meals. Brochure Ph: 065-543-162.

ALTERNATIVE WEEKEND mudbrick house, alternative energy, bush setting, healthy food, full accom, groups up to 4. \$50 day. Learning/leisure activities organised. Linda Ph: 067-221-200 Mon-Wed even. 067-752-323 Thur-Sun anytime.

EXCHANGES

YOUR OWN BUSINESS, travelling to car shows — 2-3 months work yearly will keep GR family independent. Selling because doing other business and can't be two places at once. Includes stock \$200,000 retail. Sell \$25,000 but prefer swap for GR type property Qld/NSW. All offers considered. Ph: 047-825-115 BH, 047-588-042 AH. Ward Greene, PO Box 96, HAZELBROOK 2779.

TWO HORSEDRAWN CARAVANS. \$4000 each or exchange for land. Douglas Rose, 'Rosedee', Chilcotts Rd N Arm, MURWILLUMBAH 2484.

WANTED

GRASS ROOTS original issues wanted in good condition, 1-11, also 16, please advise price. PO Box 632, KATHERINE 0851.

WANTED TO RENT house in country with ac between Glen Innes NSW to Gympie Qld for mother, daughter and grandmother. We're willing to paint, wallpaper interior for cheap rent if needed. If anyone can help us Ph: Mrs. Hill 07-849-4716.

FARMHOUSE AVAIL in return caretaking duties, rural NZ. Sheltered water access only. Doer(s) interested in trees, conservation, horses, dogs, hunting, gardening, own company and permanence preferred. Opportunities for own enterprise. Further information: The Advertiser, PO Box 437, COWRA 2794.

WELL TRAINED BORDER COLLIE sheep dog wanted. Must be good with sheep as I am a novice! Ph: Charles on 052-861-416.

HOME BIRTH MIDWIFE — pref exp, baby due 21/5. Mackay area needs one permanently. Write H Cleary, C/- PO, ETON 4741. Ph: 079-541-338.

MOTHER AND 10 YO daughter looking for a cottage in Ballina from 2/89 while mate builds. Interested in learning and permaculture. Reply L Wills, C/- PO, PALM BEACH 2108.

CARETAKING POSITION REQUIRED anywhere in Australia. Have mobile home, no wages req. M Springall, Palms Caravan Prk, MILDURA 3500.

NATIVE PLANT MATERIALS — wattle blossoms, gum nuts, etc. all types, fully dried, native materials considered. Lge quantities pref. Good prices plus freight paid. Contact Peter Hunt, PO Box 53, NORTHCOTE 3070. Ph: 03-482-2677.

WANTED TO RENT house in NSW, sth coast region, for one person and two dogs, prefer reasonably close to a town, sml house on acreage would be ideal. Contact A Everitt, 23 Jordan Pl, QUEANBEYAN 2620.

TALENTED CRAFTSPEOPLE. Work from home making up my interesting craft kits, all materials sent to you direct, nothing to buy. Hourly pay rate of \$10. Each project has its own number of total hours. I need proficient dollmakers, patchworkers, knitters, dressmakers, crocheters, and creative sewers. For registration form write to: J Wayman (Cottage Craft Network), 350 Clarke St, NORTHCOTE 3070. Business conducted by mail only.

DISTRIBUTORS for cassettes of beautiful, relaxing music played on zither and guitar. Ideal for market stall. Contact The Lyrebird School of Music, 63 Morrie Cres, NTH BLACKBURN 3130. Ph: 03-898-8950.

YOUNG COUPLE want sml house to rent, northern NSW to Sunshine Coast preferred. Please write J & Z Cernega, 4 Alfred Rd, NORTH FREMANTLE 6159.

ACCOM FOR 27 YO independent caring female or communication with person/s in share community land with intent to purchase within 1989. I have a Dip. Botanical Medicine and am evolving as an artist, ceramics at present. I would like to set up studio and herb nursery, east coast preferred. Contact Junie, C/- PO, GLEBE 2037.

RETAILER seeking corn dolls and apple dolls. Send info or sample to 187 George St, EAST MAITLAND 2323.

LAND WANTED TO RENT w/wo house, any acreage, option to buy in NE or NW Tas for 30 yo single non-smoking, non-drinking, vegetarian male arriving Devonport early April, will consider sharing. Gary, 12 Saturn St, BECKENHAM 6107. Ph: 09-451-3924.

PENSIONER LADY 39, 3 children looking for 3-4 b/r house in secluded retreat area, easy care property, scenic country, we love valleys and water around us, mtn views, rainforest, a quiet lifestyle, animals (we have 4 dogs) and hopefully low reasonable rental, near school bus route, primary and secondary school children. Places of preference — Adelaide, NSW, Qld. D Rayner, 31 Adams Ave, ROSEBUD 3939. **WANTED FREE RANGE EGGS** to sell to my customers. Up to 120 pw, must be reliable. Ph: 07-357-8367.

UNTOUCHED TROPICAL PARADISE — I am seeking someone to purchase time share in my small island acreage near Borneo. Your chance to experience idyllic lifestyle for approx \$1000 yearly for negotiable usage. Lee Ann Thompson, Malapacau Island, El Nido, PALAWAN, PHILIPPINES.

SMALL FARMHOUSE/COTTAGE needed on NSW central coast for young couple with limited finances who have just begun natural healing service in Gosford. Willing to rent long term. Phone Dave or Kimba on 043-846-049. 5 Aldinga Drive, WAMBERAL 2260.

GRASSIFIEDS

OPPORTUNITIES

PERSON WITH CARAVAN offered free site accommodation & use of facilis in return for occasional babysitting of 14 mth old. Flexible good natured person preferred. Contact May onwards. Ricky, PO Box 883, GLADSTONE 4680. Ph: 079-741-285.

WE ARE ORGANIC FARMERS in nth Tas, our children should work creatively with nature, we think organic gardening and farming is as important as reading and writing. If you are interested either in working for us as primary school teacher or in sending your children to our school write to: Gretschnann, RSD 216, MOLTEMA 7304.

YOUR OWN BUSINESS. Become independent with additional income or a full-time business. For details SAE to B Cox, PO Box 624, IPSWICH 4305.

WOULD YOU LIKE your own market stall but are unsure of what to sell? Would you like to sell a quality product? Have you creativity and imagination? We are a small soap manufacturing business in Tasmania and we can offer a good price on unpackaged soap. The soap is handmade, and high quality, containing no animal products. Write to GPO Box 929, HOBART 7001. Ph: 002-311-454.

PERSONS WITH LAND who want to regenerate a rainforest. Free rainforest seed and management supplied. Studies will be carried out yearly by Bellingen Valley Rainforest Seeds. For full details write to 'Bellingin Valley Rainforest Seeds', Private Bag, BELLINGEN 2454.

NORTH EAST TASMANIA busy take-away outlet on main tourist route, good turnover, good bottom line, established 15 years plus. Ph: 003-912-345 (AH).

INDEPENDENT PRACTICAL PERSON interested in sharing and ecology to live in lge caravan, 30 ac bush block between Cessnock and Maitland in exchange for labour. Few amenities, but more with time, occasional paid work. Also would enjoy contact and workshare with others in the area. Denis Rothwell, 59 Caroline St, EAST GOSFORD 2250. Ph: 043-231-652.

KWIK KERB your own business — amazing profitability! Earns \$110 plus hourly, incl exciting national company image plus equipment and merchandising. Landscape edging system, very high demand. Total purchase price \$11,995. Ph: 03-241-4615, AH 03-471-0507, Toll Free (008) 338-407. Ask for Phil Buckland.

HOME-MADE HABERDASHERY items wanted — quality braids, buttons, buckles, yarns, lace, home loomed fabrics etc. I'm considering opening store selling such items. Please send sample with wholesale price to Box 466, CALOUNDRA 4551.

GET A GREAT TAN NATURALLY without harmful effects of the sun, \$34.95 incl postage. Full money back guarantee. Write to Images, 297 Preston Rd, WYNNUM WEST 4178.

I HAVE TWO LINES which sell very successfully at weekend markets. They take little space and can be posted easily too, would suit either someone looking to start a stall or could be added to an existing one. For further details send SSAE to 'Markets', PO Box 569, INDOOROPILLY 4069.

WOULD YOU LIKE your own business?

Send long SASE to The Manager, Aberac P/L, PO Box 654, NARRABRI 2390.

WANT A STEADY INCOME in the city? Food run for sale, incl 1.9 ton refrigerated truck, regular weekly income \$600. Full training avail for 2-3 wks plus further assistance to increase profits. \$35,000. Ph: 02-673-4845. Ask for Les.

SERVICES OFFERED

INTERNATIONALLY RENOWNED Romany medium clairvoyant, tarot, psychometry, herbal remedies, past life therapy, any problems you may have. Satisfaction assured. Date of birth required. Taped reply. Send A\$30.00. Maggie Armstrong, Te Wai Marama, PO Box 311, THAMES, NTH ISLE, NZ.

OUTLOOK ALTERNATIVES have moved to 52 Faithfull St, Wangaratta. Outlook Alternatives specialise in central heating, solar hot water, solar electricity, wood-fired heaters and energy-efficient house design. Ph: 057-219-900.

PORTRAITURE SERVICE. Just send me a clear colour photo of your child, yourself, a loved one or even a pet and I shall paint a realistic portrait on canvas using acrylic oils. Cost is just \$19.50 unframed, signed and titled. Send cheque payable to: Jennifer Wayman, 350 Clarke St, NORTHCOTE 3070. Include name and address.

CLAIRVOYANT INTERNATIONAL. Your future, your life's path is always fascinating. Send \$30.00, date of birth and recent photo (returned) to Patricia Coleman, 1 Francis Rd, TERRIGAL 2260.

HYDRAULIC RAM. The answer to low-cost maintenance-free water supply. Expert able to provide feasibility report, design of system, installation. Endacott, C/- PO, KALORAMA 3766. Ph: 03-728-5851.

HOMOEOPATHIC IMMUNISATION kits suitable for general immunisation and specific epidemics. Attractively packaged in a wooden box. Cost \$25 plus \$2.50 p & p. Send to Elvin Forest Farm, RMB 1027 DENMARK 6333.

HAIR ANALYSIS & health profile of your unique conditions. Compiled & dowsed by Debbie Elvin, naturopath. 20 pages covering allergies, toxic factors, diet plan, natural remedies, etc. Cost \$50 incl p & p and free flower remedy. Send with a lock of hair to: Elvin Forest Farm, RMB 1027, DENMARK 6333.

TO RENT

FAMILY with 2 or more primary school children reqd to rent a 4 b/r house with lge area for gardens and animals on a property in Graman near Inverell NSW. Desperate to keep our sml school going. Lois Reardon, Ph: 067-256-411.

VERY SMALL RURAL COTTAGE shortly avail rentfree return day per week farm maintenance work. Isolated w/life refuge (1 hr Canberra), water, elect, school bus. Suit active persons, some casual work on farm and job opportunities local area, interest in processing farm mohair a plus. Write: Oliver Wilson, PO Box 64, BUNGENDORE 2621 with details/queries.

DEADLINES: GR 73 — APRIL 21ST
GR 74 — JUNE 23RD

COURSES

SHORT COURSES to develop your skills at Orange Agricultural College. April — Managing Taxation, Berry Fruits, Horse-breaking, Grape Production. May — Negotiation Skills. June — Wordprocessing, Financial Management. July — Farriery, Soil Management for Sustainable Agriculture. For details contact the Short Course Co-ordinator, Orange Agricultural College, PO Box 883, ORANGE 2800. Ph: 063-635-555.

PERMACULTURE — introduction and designer courses held at Australian School Applied Permaculture, Taree. For information contact Lee Everingham, Diamond Waters, C/- PO DUNBOGAN 2443. Ph: 065-598-807.

WICCAN HOME STUDIES, select one choice of correspondence training from: Aromatherapy (dipl); certif. courses — Psychic Self Development; Psychic Healing, Safety and Security; Wicca. Free brochure for one choice. Clair & Simon Lorde, PO Box 80, LANE COVE 2066. Ph: 02-699-6166 BH. Taped psychic predictive readings, free brochure.

MUDBRICK AND DESIGN — intensive weekend courses run by Earthways, 150 km nth Sydney — \$90 incl meals. Send SAE to Earthways, WOLLOMBI 2325.

SELF-SUFFICIENCY courses: establishing an organic vegie garden. Last Saturday of month 8.30-1.00 pm. Comprises lectures, notes, practical experience, 20 years experience in organic gardening: vegies, berries, grapes, fruit, nuts. Course fee \$50 indiv, \$40 ea per couple. Bookings Gordon, Ph: 059-688-879 after 5 pm, or PO Box 325, EMERALD 3782.

PERMACULTURE DESIGN course for city gardens in Melbourne. The course will teach you how to create an attractive, healthy and productive food garden and save energy in your house by establishing a natural system that functions without the use of artificial chemicals. The place is Melbourne, Brunswick City Farm. Two weekend course, total of 26 hours. Cost — \$180 and concession \$130. Ph: Pro-Nature 03-387-7196.

CALENDAR EVENTS

QUILTS, QUILTS and more quilts at the Australian Quilters Association biennial exhibition, April 7-10 at South Melbourne Town Hall. Display of original work, sales, bookshop. Admission \$5, conc \$3, child \$1. Ph: 03-459-5539.

NUT GROWING For Central Victoria — conference for present and potential nut growers, commercial or backyard. May 20-21, Rutherford Park near Daylesford Vic. Speakers, presentations and trade show. Cost \$100 incl accom. Ph: 053-485-606.

10TH NATIONAL HOMEBIRTH Conference. Sydney, May 12-14, 1989 at Collaroy Centre. Cabin or motel-style accom, childcare facilities, meals incl in registration. Conference fee \$200, accom extra. Enq Ph: 02-949-6839, 02-977-4304.

OUTBACK GARDEN EXPO, 22-23 April in Longreach, Qld. Garden tours, book launch, guest speakers and discussions, plant identification and other activities avail. Admission free. Contact Tina Doyle, PO Box 519, LONGREACH 4730.

GRASSIFIEDS

CLUBS AND SOCIETIES

BACKYARD SELF-SUFFICIENCY club — for lectures and newsletters covering gardening, alternative medicine, solar, wind power, hobbies, crafts, wild foods etc. Write: Graham St, BLACKSTONE 4304.

JOIN Australia's largest garden club. Members receive quarterly magazine free. Seeds, access to extensive cassette lending library. Write: The Secretary, PO BOX 110, MAPLETON 4560.

LIVESTOCK

ANGORA DOES, \$50 ea, 5 yrs and older, faithful and reliable breeders with good mohair, which is suitable for spinning, terrific to keep blackberries and weeds under control, no need for chemicals, start a herd or have a pet. I'm happy to assist those that purchase with all necessary information. Ph: 063-652-226.

DAMAGED, torn ears, lost tags. Has this happened to you? Save time, money, worry. Let me tattoo your sheep, goats, dogs, cats. Cheaper, permanent, small lots quicker. Castle-mine, BROADFORD. Ph: 057-841-674.

GARDEN AND ORCHARD

'AISLINN ORGANICS' (member ORGAV), specialise in organic, open pollinated, non-hybrid vegetable seedlings and wholesale vegetables. Herbs coming soon. Orders taken, small or large quantities. Growers let us raise your seedlings for you. And if you have vegetables or fruit for sale we would love to hear from you. Ph: Jackie or Clive 059-643-921.

KINGS SEEDS — 440 varieties — Herb, flower, oriental and gourmet vegetable and dried flower seeds. Sorry our 1987-89 catalogue has been sold out. Send \$1.20 in stamps for 1988 colour supplement which lists all varieties or SASE for order form. Two wall charts — using herbs, \$3.75 ea, p & h \$2.00. Kings Herb Seeds, PO Box 14, GLENBROOK 2773.

COMPREHENSIVE CATALOGUE. Australian native seeds 1800 species. Price \$6 posted. Bliss Partnership, 'The Cedars', BUNDARRA 2359.

RAINFOREST SEEDS. For our catalogue write: Bellingen Valley Rainforest Seeds, Private Bag, BELLINGEN 2454.

NATURES OWN HEALTH remedy. Aloe vera barbadensis, 2 plants for \$5 incl postage. C. Williamson, Burnett Downs, BUNDABERG 4670.

PUBLICATIONS

TURKEY TALK — a quarterly newsletter for the small-scale turkey breeder and pure breeds fancier. Authoritative and up-to-date information on all aspects of turkey breeding and raising, letters, book reviews and recipes. Subscription \$12.00 per year. First 1989 issue now available from Night Owl Publishers, PO Box 764, SHEPPARTON 3630.

'COOKING WITH LOVE' Wholefoods for healthy babies and children, by Christine Hepworth. 52 pages. Recipes using wholegrains, vegetables, soyfoods (tofu, miso, soymilk), fruit. All natural, no sugar etc. Information on pregnancy, breast-feeding, weaning. Available from author: PO Box 69, LAWSON 2783. \$5 post paid.

BOOKS OLD AND NEW, Australiana. Send for list. R Suters, PO Box 127, FIGTREE 2525.

INTERNATIONAL GREEN FRONT Report 1988 — a compendium of noteworthy deeds, projects, events, organisations and publications concerning re-greening the Earth. \$US7.00 (incl 25c tree tax) from Friends of the Trees, PO Box 1466, CHELAN, WASHINGTON 98816 USA.

AGSKILLS general information kits from NSW Dept of Agriculture & Fisheries. Goats (\$4.00), beef, dairy (\$3.50), fences, knots, sheep (\$2.00) — please add postage. Contact the Home Study Unit, C B Alexander College, Tocal 2421. Ph: 049-384-212.

VERSES FROM DOWN UNDER — outback poems of A & R Kirk. 52 pages of the bush and its people. \$8.50 posted from the author. PO Box 65, BINGARA 2404.

A MISCELLANEOUS LIST of out of print and fine used books on Australiana, biography, cinema, literature etc. Write: Robert Warburton, Box 386, HILLARYS 6025.

CHRONIC TIREDNESS — positive approaches to an increasingly common problem. Natural methods of dealing with ME and related disorders. Order your copy (\$17.95 plus \$2.50 p & p) from the author: Philip Bridgeman, 29 Sanford St, GERALDTON 6530.

THE INTERNATIONAL Permaculture Species Yearbook now available. Reliable, accessible information on the Earthly environmental crises, practical ways of balancing your life with Nature. Features sustainable food systems. Order now. TIPSYS, 40A Brooks St, WORCESTER, MA 01606 USA.

'HEALTH AND HAPPINESS' by E G White. Preventative medicine that works. E G White posthumously named for the National Health Federation President's Award 1986. \$5.00. Practical home healing. Also 'Practical Home Healing', treatments to relieve fevers, sprains, stomach disorders and more. 'Healing by God's Natural Methods', A-Z guide to drugless healing. Both \$7.00 each post paid. PO Box 365, GULGONG 2852.

PERMACULTURE: A Designers' Manual by Bill Mollison. 600 pages, hardcover, colour photos, line drawings. Covers all aspects of permaculture design — creating interrelated growing systems for any climate. \$59.50 posted from K. Scheltema, 13 Agnes St, BEACONSFIELD 6162.

'54 OAT BRAN MUFFIN RECIPES', 'Granny's Recipes, Remedies and Formulas', 'Quick No-bakes' (over 100 recipes), '90 Healthy Packed Lunch Recipes', 'Wine and Honey Recipes'. Send MO \$8.00 each book: Joan Mackie 42 Mayne St, GULGONG 2852.

IMAGINE! (formerly Maggie's Farm) alternative network magazine. A unique experiment in access press run by a volunteer collective as a regular news service linking many citizen initiative groups and networks world-wide. Planet earth news, hues and views. Eco-action, health & healing, new technology, psychic reality and communal lifestyles. 4 issue sub \$12. Imagine, PO Box 151, LAWSON 2783. Ph: 047-514-846, adv. 02-728-4591.

**DEADLINES: GR 73 — APRIL 21 ST
GR 74 — JUNE 23RD**

TEXTILE-FIBRE FORUM is the tri-annual colour magazine of the textile arts for Australia. Subscriptions in 1988 are \$15.50 which includes membership in The Australian Forum for Textile Arts (two-year subscriptions are \$30). Sample copy of the magazine is \$5, postpaid. Send to AFTA, PO Box 77, University of Qld, ST LUCIA 4067. Make cheques payable to AFTA. Good information on how to make things is included.

ANIMAL FRIENDS, quarterly, the magazine for all who love animals. If you share your life with an animal friend this is the magazine for you. Regular features include veterinary column, book reviews, young people's page, lively letter pages plus factual and entertaining features. Animal Friends is only \$6 a year. Animal Friends, 40 Northam Rd, EAST BENTLEIGH 3165.

FREE EARTHWORMS benefits leaflet upon request. Includes prices and castings benefits. THE BIG WORM, PO Box 149, 42 Redhead St, DOOLANDELLA 4077. Ph: 07-372-6267.

AUSTRALASIAN SURVIVOR The magazine that prepares its readers for the fast coming hard times. \$2 for sample. PO Box 11, DICKSON 2602.

NEXUS NEW TIMES Magazine is an independent publication bringing you the essential facts behind today's news. We describe new ways of living which improve your mental and physical health and enable you to thrive in the late 20th century. Take part in positive change — subscribe now! \$12 per year. NEXUS New Times, PO Box A556, SYDNEY SOUTH 2000.

ORGANIC GROWING a quarterly magazine about growing food the natural way. Gives you practical ideas for organic gardening, farming, livestock and related subjects. Available at newsagents (\$2) or by annual subscription \$10 Australia or \$12 overseas. PO Box 228, ULVERSTONE 7315.

AUSTRALASIAN HEALTH and Healing — journal of alternative medicine, Australia's major health care quarterly, emphasising self healing and prevention of illness through measures which raise body defences. Sold at most newsagents and health stores \$3.50 each, and by subscription \$12.50 per four issues (1 year), \$23 eight issues (2 years). Write Australasian Health and Healing, 29 Terrace St, KINGSCLIFF 2487.

DONKEY SOCIETY of Australia, for information on magazine subscription, publications, books and the care of donkeys. Contact federal secretary, M M Smith, 'Warrawurra', Bushells Ridge Rd, WYEE 2259.

THE GOATKEEPER'S MAGAZINE for all the latest industry news. Covers dairy, fleece and meat. \$20 per annum (6 issues). Write to TGM, PO Box 232, INVERELL 2360. Bankcard welcome.

FOOD AND KITCHEN

HOME STONE FLOUR MILLS — mill your own stoneground wholemeal flour for cakes and bread at home with a Retsel Little Ark stone flour mill. Endorsed by Housewives' Assoc. Write for catalogues to: Retsel Distributors, PO Box 712, DANDENONG 3175. Encl. 3 stamps or Ph: 03-795-2725. Distributor enq. welcome.

GRASSIFIEDS

HANDCRAFTS

WATTLE CREEK Herbal Products. Hand-made soaps, fragrances, essential oils, pottery, bath salts, creams etc. Ideal for market stalls, crafts and gift shops, health food shops. Made in Tasmania. Write to our mainland agents for free catalogue: Badge A Minit, Chapel St, NORWOOD 5076. Ph: 08-363-1655.

TEA TOWELS, pure linen blank for screen printing. Shipped COD anywhere in Australia. Details from King Koala Designs, PO Box K532, HAYMARKET 2000. Ph: 02-358-6783.

ESSENTIAL OILS, potpourri & natural products for aromatherapy and craft work. We are the manufacturers of raw materials for making massage oils, soaps, cosmetics and household products. Our extensive range includes essential oils, absolutes, fragrances, vegetable oils, gums, waxes, extracts, potpourri, herbs, spices, essences, pottery, containers. Buy from us direct, small or bulk sizes, and save with our low prices. Send stamp for free catalogue to Auroma, PO Box 187, RICHMOND 3121 or call in at our shop, 68 Burwood Rd, HAWTHORN 3122.

DO YOU WISH TO PAINT beautiful Australian landscapes in oil? My two hour video can teach you faster and better than you can imagine. \$52 includes postage. VHS or Beta. For information contact Len Hend, RMB 502, MULLUMBIMBY 2482. Ph: 066-841-027.

POTPOURRI & SACHET SUPPLIES, the Australian company with a traditional flavour. We select from worldwide sources to offer you the best at the lowest prices in Australia. Economy and traditional potpourris, flowers, fragrant oils, plus a wide range of fragrant gifts, including the most attractive, useful, fragrant pot in Australia. Write for free catalogue or visit our showroom, Potpourri and Sachet Supplies, PO Box 53G, NORTHCOTE 3070. Ph: 03-482-2677, fax 03-481-1393.

FOR SALE coloured fleeces in shades of grey, 60s to 56s, 4" length, clean and soft to spin. Contact J Regan, ATTUNGA 2345. Ph: 067-695-640.

HANDMADE 100% pure Samoan coconut oil toilet soap, no animal fat, medicated with papaya, lathers equally well in salt water. Pack of twelve 120 g cakes. A\$16.00 post paid. Island Styles Ltd, Box 139, Apia, WESTERN SAMOA.

MISCELLANEOUS

SAVE AND DO IT the Quick Brick way. Quick Paver, Quick Brick, Quick Form (in situ block maker) and Quick Ram (earth block machine, Cinva ram type). The fastest and easiest machines available in Australia. Send SAE for brochures to Quick Brick, PO Box 627R, GYMPIE 4570 or Ph: 071-827-099 anytime. You can do it yourself the Quick Brick way.

REVERSE OSMOSIS WATER FILTERS — highly advanced form of water purification. 3 filters in this portable unit, 99% removal of bacteria, chlorine, DDT and other toxic chemicals. Gillian Summerbell, PO Box 1519, HORNSBY 2077. Ph: 02-477-2838.

GENERATOR 4KVA Powamac Honda petrol in frame, \$800 plus freight ONO. Ph: 079-393-816 or write PO Box 652, YEPPON 4703.

THINKING SOLAR but cost has you stopped? It may be cheaper than you think. For free quote in NSW write to Solarforce Australia, PO Box 586, KEMPSEY 2440.

MUD BRICK FRAME makes six bricks at a time. Professionally made steel aluminium construction. 15" x 8" x 5". \$40.00. Ph: 03-861-5221.

'PIERROT TEARS' is a fantastical adventure story of puppy-love, magic and excitement for children 7 and up. 98 pp, softcover, pub. by Tobago, is avail direct for \$19.50. Offer includes a pierrot clown original painting, signed. Send cheque payable to J Wayman, 350 Clarke St, NORTHCOTE 3070. Include name and address.

TRAM — fair condition. Suitable for outbuilding or conversion into alternative dwelling. \$1000 OBO. Ph: Lance Walker at Cockatoo Primary School, 059-688-017.

LOW SPEED GENERATORS for windmills, water turbines, steam engines. The definitive book: *The Homebuilt Dynamo* (1987), 182 pp, 8½" x 12" hardback. Generator design and construction with ceramic magnets. Complete plans, 268 photos, step-by-step construction details. Postpaid airmail \$85.00, brochure \$5.00 refundable. Todd Forbes Publishing, PO Box 3919, AUCKLAND NZ.

CANBERRA FUEL STOVE and hot water service. \$800 ONO. Ph: 063-318-892.

WIND GENERATOR 1KW-32V complete with tower and heavy duty cable \$1250 or compl with battery bank, regulator, panels, 2000w inverter and back-up generator \$3450. Ph: 058-561-728. Buyer to dismantle and remove.

CHIP HEATERS. No electricity needed for instant hot water, operates from town or tank water supply. \$170.00 inc p & p. 'Heaters', 358 Centenary St, ALBURY 2640. Ph: 060-215-469.

BARGAIN BARGAIN Windco wind generator 450W 24V, excell cond, \$1300 no offers. Ph: 062-383-266.

DUNLITE WIND GENERATOR 750W 32V 4 blade model. New bearings. Armature overhauled. \$1600. Ph: 054-653-502.

SPIRAL STAIRCASE, entire. ¾ turn 1900 mm dia floor, height 2400 mm, \$1500. Ph: 054-653-502.

GOUT CONTROLLED 400 year old recipe that works. Send \$2.00 and SAE to Paula Mann, 7 Myrtle St, MILTON 2538.

WHY NOT ESCAPE the stress of modern day-to-day living? The new and extremely popular relaxation tape 'Lunch on Lamington' is available now. \$14.50 includes postage for one hour of pure peace. Big Toe Productions, PO Box 659, MULLUMBIMBY 2482.

MEDITATE ON THE INNER LIGHT and sound and transcend body consciousness under the guidance and protection of master Sant Darshan Singh. True spirituality is a gift from God and is given free of charge. For further info please contact Sawan Kirpal Ruhani Mission, 63 Morrie Cres, NTH BLACKBURN 3130. Ph: 03-898-8950.

**DEADLINES: GR 73 - APRIL 21ST
GR 74 - JUNE 23RD**

If you wish to change your Grassified please give us FULL details of your name, address and the content of the original advertisement

SUPER POTENT ANTI-OXIDANT enzymes. State of the art plant genetics has produced super strains of wheat which when sprouted and dried provide megadoses of anti-oxidant enzymes. These neutralise 'free-radicals' i.e. poison by-products of the body that cause cell damage, aging and degenerative diseases. Excess free radicals come from environmental pollutants, radiation, illness, poor nutrition, stress, excess sun. It is now possible to greatly reduce cell damage by taking today's most effective anti-oxidant enzymes. 160 tablets \$49.95. Money order to Lucy Smiechura, 107 Sunset Strip, MANYANA 2539. SAE for info. Ph: 044-561-462.

WATER ENHANCERS — Oxygen Plus: solution of stabilised electrolytes of oxygen. Kills harmful bacteria, fungi, viruses, promotes beneficial bacteria, makes water drinkable for 5 years, extends life of milk, oil etc, oxygenates bloodstream and more. 70 ml \$27.95. A-water, magnetic solution of minerals. Balances pH in the body, aids digestion and helps eliminate toxins. Many domestic, agricultural and veterinary uses. 70 ml concentrate \$20.00. Money orders to Lucy Smiechura, 107 Sunset Strip, MANYANA 2539. SAE for info. Ph: 044-561-462.

WATER PURIFIERS (reverse osmosis) suitable city/country usage. Free delivery. Ph: 044-561-462.

CERAMIC OCARINAS for sale. Beautiful handmade wind instruments for all ages. Seed pod shaped with lovely carved design. Comes with instructions and music. \$14.95 incl p & p. Prompt delivery. Send cheque or money order to B K Niven, C/o PO, PORT FAIRY 3284. MAIL ORDER medical supplies. Price list avail from PO Box 83, INGLEWOOD 6052.

SPECIAL REDUCED RATES 1 kg net weight of mixed size worms (approx 4000 worms) for \$35.00 incl freight NSW, \$4.00 extra interstate. For gardeners, fishing-bait and aquarium food. We will not be beaten on price or quality on any order large or small. Enquiries to Wormborough Farm, PO Box 794, TAREE 2430. Ph: 065-539-633.

LIVESTOCK

RABBITS NZ WHITE (meat type) Ph: 052-661-564.

CONTACTS

JANICE you replied to my ad in GR 71 and sent a photo of yourself and your little girl. Please contact me again as you never gave your address, or phone me on 02-977-6705. Tim.

AMERICAN (NATURALISED AUSSIE) veterinary surgeon, Gemini, Ige home on sml country property, Capricorn coast, modest practice, 60 yo going on 25, good sense of humour, kind, gentle, trustworthy and damn lonely after recent separation. I'm a non-smoker, enjoy jazz, long walks on the beach, long conversations and sharing my joys and happiness with someone I can love. Jerry, PO Box 54, YEPPON 4703.

GR LADY 44, wants correspondence/friendship relationship, preferable N/E NSW. I'm honest, don't drink/smoke, sense of humour, dreamer, like things to happen, impulsive, love simple things in life, beach, bush animals, plants. Reply Patricia, C/- PO Box 764, SHEPPARTON 3630.

GRASSIFIEDS

CONTACTS

COUPLE/FAMILY/SINGLE wanted to a half share in a 100 ac property 30 km from Pambula NSW with a 100 m interested in independent earth people who enjoy work and have respect for nature. I'll reply likewise. Linda Nelson Rd, BOX HILL NTH

CANCELLED

TAUREAN MAN 30 living in rented country cottage southern NSW would like to exchange letters/exchange visits with person/persons in northern NSW area. Interests include simple living, gardening, growing vegetables, preserving, reading, open-fires, raising bantams, tarot, working, travelling, good company. Please write Trevor, PO Box 662, LAVINGTON 2641.

ARE YOU BORED? I'm looking for a tall, rugged, energetic grazer in his 50's, interested in Angora goats and/or Arabian horses, to share outings, laughs and who knows what else. Contact: Judy Dally, Lambs Valley via BRANXTON 2335.

GUY, 34 YO, living and working in Sydney striving to get ahead. Loves the outdoors, the beach and coastal life. Enjoys music, movies, good food, bush walking and of course quiet times at home, loves to rage but suffers the after effects. Would like to expand my horizons by corresponding with a lady of pleasant disposition who wants to go forward and perhaps look at mutual companionship. Tony Foster, 56 Reynolds Ave, BANKSTOWN 2200.

OUTDOOR LADY seeks gentleman companion, 40-55 to share bushwalking, canoeing, cycling, good food and conversation, must be fit and healthy, enjoy life, ABC TV, reading, conservation. C/- 33 Commonwealth Ave, WOY WOY 2256.

NICE, PETITE, BLONDE (33) Leo/Cancer cusp from Sydney looking for her perfect soul-mate, any area. You are sensual, sensible, secure, honest, have own opinions on life, subtly wild, monogamous, nice looking (with long hair perhaps?) love people, the ocean, nature, animals, astrology, craft, music and live bands, smokeless and drink socially. Sharon, C/- PO Box 764, SHEPPARTON 3630.

MALE VEGETARIAN, intelligent, capable, health conscious, 36 yrs old, 175 cm tall, slim and fit. Generally very practical, down-to-earth in outlook, but still somewhat romantic, affectionate and caring by nature. Presently living on 15 ac in the foothills of Mt Grandchester, some 90 km west of Brisbane, but still working in the city. My ambition is to establish a small, virtually self-sufficient farm and share a peaceful life in the country with a loving partner. I'm seeking a thoughtful young woman of similar outlook to share my future. Please write or phone Wayne Pollard, PO Box 44, ROSEWOOD 4340. Ph: 075-656-812.

GENT 38, genuine, sincere, 5 ft 11 in, 11½ stone, non smoker, non drinker, with own house & business in W Vic. Enjoys sport, dancing, 60's music, good friends. Finds working just for himself unappealing. Needs a lovely lady, honest & caring, to work & share with. Pref 25-35, slim, non smoker. Darrell, C/- PO Box 764, SHEPPARTON 3630. Ph: 053-595-220.

WOMAN OF THE LAND, Libran/Aries rising, 38 gay, sense of humour, on a spiritual path. I have a bush retreat in beautiful peaceful setting, 80 km Brisbane, working towards degree self-sufficiency, special interests, alternative healing/thinking, conservation, photography, would like correspondence from gentle, aware, practical souls, possibility to share land if compatible. Erin, C/- PO Box 764, SHEPPARTON 3630.

26 YO LADY, seeks male correspondent to exchange thoughts, feelings, plans and interests in travelling, homemaking, the self-sufficient lifestyle and life! Dawn, Suffolk Park Caravan Prk, SUFFOLK PARK 2481.

VEGETARIAN — CANCER MALE 1.87 m (6 ft 1 in) slim, spiritual, mature, German, versatile, creative, non-smoker, non-drinker, non-conformist would like to meet a nice attractive tall dark-haired female 22-34 with similar interest in art, music, meditation, spiritual/wholistic healing etc. (possible Scorpio or Pisces). Please write if you are a vegetarian and your heart is ready to meet an honest, sensitive, emotional natural man. Happy Soul, GPO Box 2060, ADELAIDE 5001.

GENT 42 SINGLE DAD living lovely spot near the sea, seeks lady similar circumstances who likes outdoors, gardening, people etc, appreciate openminded person, sense of humour, pleasant nature. Write Michael C/- 50 Acton Cres, GOODWOOD 7010.

LADY 50 YO, tired of being alone would like to hear from male 45-50, view to permanent relationship. Site 119, C/- Gateway C'van Prk, BUNDABERG 4670.

AUST LADY 52 healthy, attractive, reg nurse, 72 kg, 162 cm, interests bushwalking, music, natural health, travel, seeking compatible male companion, non-smoker, moderate alcohol only, no drugs, educated, secure, no ties, healthy, close to Sydney. Like to share cost of rural hideaway. Details to Ruth, C/- PO Box 764, SHEPPARTON 3630.

SINGLE MALE 32 YO, 6 ft 2 in, 11 st, non-smoker, social drinker, working towards own piece of land and GR type lifestyle, seeks lady to share my dreams, 18-30. Permanent relationship. Replies to Simon, PO Box 329, MERIMBULA 2548.

MALE 38 father of 2 boys seeks contact with mother of sml or lge family to pioneer sml bush haven 1 hrs travel from Melbourne. Write Phillip Kaye, RMB 1415, BROADFORD 3658. Ph: 057-849-288.

SINGLE MALE 5 ft 9 in, fair, fit, own acreage in country nth east NSW, like to meet lady 30-40's who likes animals, view sharing life, children OK, lge old home. Neil Perry, Jiggi via LISMORE 2480. Ph: 066-888-376 after 8 pm.

MELBOURNE WOMAN 46 slim, sensitive, sensual, spiritual, student in alternative medicine, enjoys films, theatre, seeks similar man, any nationality but sense of humour essential. Ph: 03-499-6133.

SINGLE WOMAN, now. 50 yo, 5 ft 7 in, not overweight, good sense of humour, interested in returning to rural lifestyle, independent, enjoys gardening, reading, music, outdoor activities, at present living in Brisbane area. Seeks male companion 50 to 60 yo to write or meet. Helen, C/- PO Box 764, SHEPPARTON 3630.

SINGLE MALE — 50 yo, 5 ft 9 in, mod build, land owner who enjoys fishing, good company, being close to the land. Appreciates honesty, loyalty and a healthy respect of nature, tired of being alone. Seeks caring relationship and sharing of each other's goals with healthy woman 30 to 40 years, good sense of humour, non-smoker, not into drugs, religion or politics, children welcome, all letters answered. Reply Tom, C/- PO Box 286, WEE WAA 2388.

33 Y.O, BLOND, green eyes, slim guy, semi-professional, world travelled, likes the simple life, would like to meet a lady in the Mareeba or Atherton areas. Please write to Doug, C/- PO Box 764, SHEPPARTON, 3630.

TAUREAN LADY, 42, 5 ft 5 in, slim, 6½ y.o. son, non-smoker, interests include music, books, wine, art, politics, good company, realists, country life, animals. Man of character, strength, intelligence, education, warmth, humour, good body who likes children — where are you? Sue, Box 100, LILYDALE 7268.

GOOD LOOKING COUNTRY GIRL living on parents' sheep farm, like to correspond with outgoing nature loving guy between 35 to 39. Elizabeth, C/- PO Box 764, SHEPPARTON 3630.

33 YO MALE, 168 cm, 69 kg, blond hair, blue eyes, European background, with a 3½ yo son, own nice home, non-smoker, adventurous, dreamer and realist, sense of humour, open, caring, affectionate, intelligent, well educated with interest in nature, gardening, horseriding, swimming, music, photography, outdoors, open fires and more. Seeking a nice attractive, feminine girl under 30 yo to develop a lasting relationship and enjoy life together. Sharing life with the right person makes everything twice as beautiful. Please write with phone number. Bernd, 14 McAllister Rd, MONBULK 3793.

INTELLIGENT SCORPIO MALE 43 YO, 6 ft, 80 kg, divorced, post-grad social sciences with comfortable permanent income, seeks lady with whom to rebuild compatible lifestyle. Chris, 6 Suvla St, WAVELL HEIGHTS 4012.

HEALTH CONSCIOUS MALE 52, 5 ft 6 in, seeks female partner, grow almonds, 75 ac, house, seasonal river, pool, scope 1000's, good investment, rosy future, \$80,000. Box 8, CAMBRAI 5353.

INDIVIDUALISTIC GUY, 29, look 23 and some think younger, 5 ft 10 in, blue eyes, brown hair, non-smoker, non-drinker, follower of the principles of Natural Hygiene, looking for caring individualistic, not too independent, attractive slim lady, 23-25, close to my height, with lots of energy to match mine and seeking one day to be self-sufficient. My interests are many and varied including squash and gym. Where is my soul mate? Replies from interstate also welcome. Michael, 32 Braemore Tce, CAMPBELLTOWN 5074.

LONELY WIDOW, kind and caring, would like to hear from people, similar position, either sex, in sixties. MM, C/- Box 764, SHEPPARTON 3630.

INTRODUCTIONS, soul mates, friends, understanding help, full details, SAE, 'Consultus' Box 105, CLONCURRY 4824.

DEADLINES: GR 73 — APRIL 21ST
GR 74 — JUNE 23RD

GRASSIFIEDS

CONTACTS

SINGLE GR LADY new to Geelong area seeks friendship with like people, maybe also with teenagers. Also any single men for companionship. Sue Bender, 15 Arkins St, PT LONSDALE 3225. Ph: 052-521-002.

LONELY? Do something about it. Our experienced and discreet agency can help you. Ph: Granite Introductions 076-811-074, or write PO Box 452, STANTHORPE 4380 for more information.

RENDEZVOUS WITH ROGER, on the NSW South Coast, living idyllic sort of lifestyle, desirous of meeting peace loving female companion, adventurous, someone who tends to look inwardly at life and probably more than anything some intangible quality which attracts . . . This 46 yo bachelor is turned on with psychology, philosophy, running, world travel, computers, health and fitness, let down badly by inability to cook, no meat or narcotics, financially stable. Please write or phone. Roger Croft, PO Box 272, MILTON NSW 2538. Ph: 044-552-812 anytime.

LADY 34 slim build, seeks natural loving, honest, caring male in view a perm relationship, lover of the simpler life and enjoy craft, gardening, beach activities. Heather Faneco, 91 Melseltr Rd, HACKHAM WEST 5163.



Jan Gunn

LATE GRASSIFIEDS

COUPLE/FAMILY/SINGLE wanted to buy a half share in a 100 ac property 30 km inland from Pambula NSW with 40 yo lady. I'm interested in independent down-to-earth people who enjoy life and work and have respect for the land. Write to give me an idea of what your ideas are. I'll reply likewise. Linda White, 137 Nelson Rd, BOX HILL NTH 3129.

MUNGINDI — NSW/Qld border inland, ½ ac, 8 yo home, 17½ sq, air cond, carpeted, 3 b/r, office, verandah, carport, sheds, horse-stable, feed shed, fruit trees and garden. Was \$58,000, reduced owing to illness, must sell \$50,000. Ring Gwen or Charlie 067-532-172.

BATTERIES BRAND NEW approx 60 LE carbon cells as used in unmanned lighthouses etc. 1.2 V, 2000 AH each. Ideal for backup lighting. \$300 lot. Ph: 057-841-674.

LAND FOR LEASE. Not far from Kurmond NSW. 2 acres for organic growing, conditions to be negotiated. Good references and experience required. Ph: 045-765-486.

WELL EST 2 B/R home on 3.5 ac, power, phone and pumps supplying 3 tanks, river frontage with sealed roads, only 10 km from Tamworth. Lge family & sunroom with peaceful courtyard & lovely valley views. Carport, air-cond, s/c heating, no chemicals for two generations. Ph: 066-538-533.

MULLUMBIMBY — organic avocado and banana farm. 16 ac, red soil, approx 500 avocado trees, 3 hec bananas, partly completed house, 2 sheds, landrover, sundry equip. \$105,000. Ph: 066-874-335 or 066-841-143.

**DEADLINES: GR 73 – APRIL 21ST
GR 74 – JUNE 23RD**

When working out the cost of your Grassified don't forget to count your name and address if they are to be included in the advertisement.

NATUROPATHIC STUDENT (single mum) 32 yrs — looking for spiritually minded male (honest communicator) around Sydney. My interests are alternative lifestyles and philosophies, nature, theosophy, culture and music (baby 12 mths). Write to Janice, 45 Campbell Ave, DEE WHY 2099.

30 YO tall sensitive male who will have a go at most things, seeks a female companion to create an alternative lifestyle. I love children and all things natural. I am flexible where to live. Paul Judd, C/- PO Box 33, TAWONGA 3697.

TAUREAN WOMAN 35 living in peaceful farmhouse in the mountains with 2 children, 3 goats, 2 dogs and 1 kitten. Seeks friendship with other women whose interests include camping, bushwalking, horseriding, astrology, numerology, music, books, herb gardening, alternative lifestyle, animals and moonlit nights. Reply Sophie, RMD 1732, BENALLA 3673.

MALE 37 seeking mate. Singer/songwriter, vision raising children, alternative earth home. Philosophy anti-system, home education. Her kids OK. Rational man, kids discipline important, smoker, social drinker, self sufficient. Goal possibly travelling, music income future. Similar philosophy important for family solidarity. Please write: Gary Elt, 5 Allnut St, BRIDGE-TOWN 6255.

267 ACRES with panoramic views to Margaret River and Augusta. Established bio-dynamic sweet chestnut orchards. Fenced and watered for sheep with new timber shearing shed. Approx 20 acres natural bushland. Gazetted creek from state forest. Beautiful spring water, marron stocked. Four bedroom weekender. SEC, phone, secluded access but close to school bus route. Chemical free for 12 years. \$210,000. For more information contact J McBain, C/- PO WITCHCLIFFE 6286 or phone Chris on 09-447-4284.

KING RECORDS World Wide exotic music mail order catalogue specialists. Want demo recordings of original music. Woodside Rd, 21 Rd GERALDINE NZ.

Sender's Name For issue No/s.

..... Classification,

..... Postcode Cost

General advertisements cost 30¢ per word, and property for sale is 40¢ per word.

Feedback Link-Up Feedback

Dear Megg,

This is another gran that has enjoyed your magazine letters and remedies. It is the first time I have bought *Grass Roots* and have enjoyed its great reading. I thought the readers might like to hear about our daughter Belinda Kelley, who lives in Kyabram, Victoria. Many years ago, Belinda was interested in doing WICKER WORK, but found it impossible to obtain any literature on this craft. After a lot of searching and writing to publishers, she decided to experiment herself and now produces beautiful work, selling her craft in shops throughout the area. She has won quite a few prizes in the Shepparton Show and teaches the craft in schools. She also published her first book on this and sells at quite a cheap price to enable students and people to enjoy the craft. She also makes her own gift cards and puts dried native designs on them, they are really beautiful.

I live in a town in NSW called Coleambally. One day a year Beth and Keith Buchanan open their farm to the public and have a Castor Oil Day. Everybody dresses in period costume, Keith milks the goat and separates the cream, Beth makes cottage cheese, yoghurt and dampers, and all the old machinery is in working order. Clydesdale horses pull the machinery around.

Hope you enjoy my letter as much as I have yours.

**E Gallagher
Kingfisher Caravan Lodge
PO Box 90
COLEAMBALLY 2707.**

Dear Sir/Madam,

We are writing to inform your readers of the formation of the DARWIN HERB GROUP. We formed a committee in April last year and hold a meeting once a month on the third Sunday of each month at 3 pm at 20 Conigrave Street, Fannie Bay. Our interests cover all aspects of herbs — medicinal, folk lore, culinary, craft, gardening. We have had several interesting people come and give talks on growing herbs in the tropics, on plants which thrive in the dry and those which will last the wet, herbal medicines, a field day at the herb farm and herbal cosmetics. We intend to continue to have these talks and attend some of our local fairs here next year to raise funds to establish a lending library for members. We produce a bi-monthly newsletter at present. Membership is only \$10.00 a year. Further enquiries can be made by phoning Robin Lion on 089-853-637 AH.



**Tracey Johnson
Darwin Herb Group
PO Box 39389
WINNELLIE 0821.**

Dear Friends,

I'm hoping to make contact with a wonderful lady and her son who I believe are still on the road somewhere in Queensland in her camper. The last known mailing address I have was C/- PO Mackay, prior to that El-Arish and Manly. If Soni should read this, or anyone may know her current address and could pass this message on to her I'd love to hear from her. Sadly, somewhere along the line in the mail system we lost contact. SONI PASTOR and Donna, I look forward to hearing of your travels of the past 10 months.

**Jon
PEACEFUL BAY 6333.**

Dear Megg,

We are still in the midst of trying to sort out the mess at Battle Creek (ex Craft Village). Seems we may get to own our plots soon, though all thoughts of a Craft Village are extinct.

Meanwhile we have bought a 10 acre block near Ingham. I would be so grateful if you or your readers could recommend a book (or give advice) on UNDERGROUND BUILDING to suit us. We hope to 'dig-in', so to speak, to the slope and have our home set in the hillside. I did once see a house like this in Dairy Flat, N Island NZ. It looked just like a small hill apart from the front and skylights in the top of the hill, the roof. I hope you can understand my thoughts. We are also interested in earth building for floors etc. Failing this a log home seems interesting. As it will have to pass council regulations any advice prior to application to them would be greatly appreciated. Regards.

**Tui Dixon
PO Box 55
MT GARNET 4872.**

'Australian Earth-covered Building' may be the book you need. It's by Sydney Baggs et al and published by University of NSW Press.

Dear Megg and Grass Roots People,

I decided that the time had come when I could not put off my letter writing any longer, and you are on the top of my list.

I'd like some information on HOME SCHOOLING please. With a 3½ year old, a 16 month old and number 3 due in July this year, a decent (non-government) school would be beyond our finances, and I'm determined that our children will be properly educated.

Jim is working again after a long period of unemployment. The silly thing is that we are only \$10 per week better off than we were while on the dole. No wonder there are so many so called dole bludgers out there. There's not much incentive to slave away in a factory for 8 hours a day when you can get the same amount of money to stay at home and not work!

We make our own yoghurt, wholemeal cakes and biscuits, ice-cream and jams, peanut butter etc. and I would like to try soap making and baking bread. Any soap and bread recipes would be greatly appreciated please. I also knit jumpers, socks, hats, gloves and scarves for all of us, and do some sewing as well. There always seems to be a pile of mending to be done — I won't throw anything away until it is beyond repair.

I'd like to hear from anyone who'd like to write, and if anyone with pre-school children living around Melbourne would like to call in at anytime there are 2 boys and their mum who would enjoy the company. All the best.

**Vicki Judd
5 Hakeville Ave
NUNAWADING 3131.**

Dear GR Readers,

I am hoping someone can write to me with advice/information re the availability of houses to rent or share in the BENDIGO AREA. If Bendigo isn't the go, I'll be looking for somewhere to live in Melbourne — preferably outer suburbs. I've been in Perth the past 3 years and look forward to returning to Vic. in about 6 months time to be closer to family and friends.

I'm 33 and a single mum. My daughter is 18 months old and we are both vegetarian. I had a wonderful homebirth. I've rejected artificial immunisation and most of the rest of modern medicine. I'm interested in animal rights, alternative education, gardening, being a mum and being a friend of the Earth. Are there other single parents in Bendigo/Central Vic. or outer Melbourne who have similar interests and would like to correspond? All letters will be gratefully received and definitely replied to.

After asking for so much, I would like to offer my recommendation of a book for those parents agonising over IMMUNISATION. *Don't Get Stuck* by Hannah Allen, published by Natural Hygiene Press, 1985 edition, is a very informative and well researched book which exposes the fraud and dangers of inoculations. If you have difficulty obtaining the book it can be got from Natural Health Society of Australia Ltd, 200 Goulburn St, Darlinghurst 2010. You would have to ask them the price — it was \$16.50 postpaid two years ago.

Before I end this hopefully not too long letter — if anyone would like a Beauty Without Cruelty 1988 *Preferred List of Products* (cosmetics, toiletries, household cleaners etc. not tested on animals or containing animal by-products), please request with SSAE and I will post to you free. With the payment of a stamp to cover cost of photocopying I will also send on request an info sheet on the immune system — what destroys it, how to maintain a healthy one, how to rebuild a destroyed one, naturally — applicable to newborn babes and young children.

**Rosemary
C/- PO Box 764
SHEPPARTON 3630.**

Dear GR Readers,

I am with Yota-Yota Local Aboriginal Land Council NSW and we are undertaking an extensive building programme including 10 houses and 3 community buildings. Basically all buildings are of earthbrick with post and beam in oregon and pine frames and trusses. Our problem arises with WHITE ANTS which have moved into cow pats and stacks of fired bricks near the new framework.

We would like to know if we could purchase an organic control for this pest. If it is a spray then breakdown times and degree of toxicity would be needed. Also the recipes for ingredients would be appreciated. Anything that anyone else feels we should know will be gratefully received. Please write.

**Robin Bailey
C/- PO
BARMAN 3639.**

Feedback Link-Up Feedback

Dear Friends,

After living for 26 years with my folks in Toowoomba, Qld, I want to get out and see a bit of our beautiful country. I hope to work my way NORTH TO CAIRNS in the next 6 months, and I'd like to meet up with people on farms. I'm handy with cars, and a willing worker. Please write if you need some help in the next few months and live anywhere between Toowoomba and Cairns.

Chris Hodges
395 Hume St
TOOWOOMBA 4350.

Dear GR,

I have just discovered *Grass Roots*. What a friend! I'm so thrilled with all the great ideas and I'm sure it is going to be an invaluable source of information for the whole family.

I am a vegetable growing mother of 2, Emma 18 mths, Jasmine nearly 4 mths now. Does anyone have any tasty ideas and RECIPES FOR BABY FOOD using fully organic ingredients? My babies will be so happy. In health and happiness.

Megan Sleight
2/105 Mansfield St
ROZELLE 2039.

Dear Grass Roots,

Would anyone know where I could find a pattern for CROCHET SHOES, or maybe anywhere where I could pick them up already made? Any info would be greatly appreciated. Thanks for a great mag.

Erin
65 Eton St
SUTHERLAND 2232.

Dear Megg and Readers,

I've noticed an increasing number of letters about ASTHMA and possible cures so thought I'd let everyone know about the success I've had with BEE POLLEN tablets. Our youngest son (now 10) developed asthma at three and we went through several trying years of severe attacks and hospitalisation until a friend suggested the tablets. As the prescribed medication made him nauseous, cranky and lethargic I felt it was worth a try. He started to improve almost immediately and hasn't had an asthma attack for a couple of years. Our daughter (now 7) also developed asthma at about three years of age — straight onto the pollen and she has had no further trouble. I also find the pollen excellent for hayfever and sinus and no longer suffer either. I buy Natures Own pollen from the chemists — two tablets a day initially and then I find one a day sufficient. Hope this might help some other asthma or sinus sufferers.

Great magazine, keep up the good work and all the best for '89.

Jan Petty
MS 1017
BILOELA 4715.

Dear Megg & 'Family',

How embarrassing! Linda Stubberfield (GR 70, p. 81) is absolutely right, of course. RINGWORM is indeed a fungal infection (any one of a number of different ones in fact). What I meant to convey was that ringworm is not an infestation with worms of any kind and will not respond to treatment as such. Staph lesions sometimes have the appearance of the fungal infection known as ringworm, and vice versa, but they are radically different conditions and require different treatments. Obviously I wrote too hastily and edited not enough. Sigh . . .

Regards to all the GR family.

Bob Jones
OUSE 7461.

Thank you Bob for having the courage and honesty to admit your mistake — which was ours too, because we should have picked up that point before the letter was published.

Dear Everybody,

This is our first letter to *Grass Roots* — excellent magazine, keep it up. We are after some help/info on RAMMED EARTH HOUSES. We hope to build a rammed earth house here in rural Darwin, but we've only just purchased the land. Are there any rammed earth houses here in Darwin/Katherine that we could have a look at, NT readers? Has anyone built a rammed earth home in the tropics? Any info at all will be gratefully appreciated e.g. good books, magazines, companies and so on. Thanks again, all letters will be answered, and we will really appreciate any info. Kind regards to one and all.

Carolyn Wilkinson and Jethro Martin
1-37 Ellengowan Dr
BRINKIN 0810.

Dear Grass Roots,

I have not written before as I have just discovered this very handy book. I love handcrafts and outdoor work. My husband is not retired, but is always told he is too old to work, so we are unemployed, and have to stretch what we get. We moved onto 5 acres last August, with our foxie dog, two ponies, riding and harness, and two pet sheep. Now we have 20 sheep — 6 are black or grey as some of the lambs are grand-descendants from a black ram, and the ewes are in lamb now to a grey ram, so we are hoping for some coloured lambs this year. We have been promised a cow when she calves in February. I can handle that all right as I helped my dad milk 23 by hand for several years.

What I want to know now is, how do I LEARN TO SPIN with a single stick, as I could never afford a wheel? I tried a tiny piece of spinning with short pieces pulled off a fence, so I have a thread 4 feet long, about 5 ply, but very rough and weak in places. One of the ewe lambs of last year has a beautiful soft fleece and I would like to try when she is shorn in August.

Also, can anyone tell me a definite cure for STINKWEED? We have an acre of it. We have tried diesel, oil, pulling by hand (with the result of rash up my arms) and now I'm chopping it off with the shovel before it seeds. But it is far too big a job, without poisoning, which we can't afford.

Jenny Forbes
57 Welshpool Rd
WATTLE GROVE 6107.

Dear Megg,

I really enjoy learning about the how to's from *Grass Roots*. Could you tell me where to find information on HOW TO STORE GRAINS LIKE WHEAT without the use of chemicals? Are there any particular books or pamphlets available on the subject that I could purchase, or where else could I enquire? All help will be appreciated.

Pete
PO Box 385
EMERALD 4720.

Dear GR Friends,

Do you ever wonder what to do with all those PLASTIC CARRY BAGS from the supermarkets? Here are a few ideas. Use these as packing for fragile goods you want to send through the post. A layer of crumpled bags in the bottom of the box, more to stuff up the gaps and another layer on top will cushion breakables quite well and they are light.

Around the garden they are very useful. Straighten up the bag, roll it up from the sides and cut into 4 cm (1½ in) strips. Use to tie plants to stakes or trellis, you can write the name of the plant on the plastic with a felt tipped pen. Loop a few together chain fashion and use instead of string to criss cross over seedling beds. Use the chains between two long stakes as supports for peas etc. Use strips tied to fruit tree branches so they flutter to scare off birds. Cut the bottom off the bags and use as frost guards around tender plants.

If you are a knitter, cut bags into 2 cm (¾ in) strips, loop into a long chain and with large needles start knitting a mat to stand on in the shower, no need to knot them just loop in another bit and away you go. Make a pad to kneel on while weeding by stuffing a flourbag with crumpled bags then pop it into another plastic bag to keep it clean and dry. I hope I've given you some ideas to use up the pesky things. Of course the local op shop will always accept them if you remember to take them with you on your next shopping trip.

To New Moon Day, whoever and wherever you are, thank you and yes, it did work. Best wishes to all.

Jan Atkinson
741 Nepean Highway
MORNINGTON 3931.

Dear Megg,

I would like to pass on a word on the subject of FODDER SPECIES FOR POULTRY, mentioned in 'Down Home on the Farm', GR 70. I only have a few fowls in a run 12 x 12 yds. Along one outside fence I have a row of lucerne planted. They are able to pick off some through the fence, but it is easily cut and chopped if you wish. I believe lucerne has the highest protein of any known fodder, will grow almost anywhere, cold or hot climate, and once established will be there for some years. The hens have been laying extremely well, almost all the year through. I feel sure the lucerne has a big effect on their laying as well as keeping them healthy.

Terry Taske
46 Mt Peter Rd
EDMONTON 4869.

Feedback Link-Up Feedback

Dear Grass Roots,

First, thanks for an excellent magazine — it keeps my dreams alive. I would like to hear from anyone that has anything helpful on RHEUMA TISM. I have read so much conflicting information. As I'm only 29 and the local doc says 'learn to live with it,' anything tried would be welcome. Also from any other single parents who have bought or considered buying a home, I'd like to hear about the hassles you've had. I am waiting for a low income loan but with the price of land in the area rising it could be all just a dream.

I also read with interest 'Granny Knew a Thing or Two.' I have recently moved back near my grandparents, 88 and 84 and still growing their own vegies. I regret the years wasted not really listening as their fix-anything, make do and home cures are truly amazing. I have a lot to learn from them but I'm afraid time is running out. I hope to write down all stories and remedies before they're lost forever.

Kathy
C/- PO Box 35
BAROOGA 3644.

G'day GR Supporters,

I'd firstly like to mention how much we (Jackie, Bluey and 11 y.o. Danny) enjoy reading this magazine.

We have a beautiful old home in the middle of a 175 acre property in the magnificent Snowy Mountains — no droughts, plenty of excellent bush and a permanent fast running mountain trout creek only about 200 yards from our house. As well as trout and yabbies there are the charming little platypus and an absolute abundance of bird life. We check the skies often for the family of 3 wedge tail eagles. There are tiny kingfishers that are dressed in colours like peacocks, and tiny finches all the colours of the rainbow. The list goes on.

We are only able to rent the house with 1½ acres. There's enough room for our 3 ducks, 3 bantams, a milking goat and two of my horses. I am a qualified riding instructor and have dabbled in breeding Arabian cross over the years, each one really far too beautiful to part with. I've had only 6 horses for a while now — they are our family and not to be parted with. There are also 2 cats and 3 dogs. We have built up a beautiful garden, mainly vegetables with some fruits. It is a companion garden with many herbs and flowers like garlands among the very happy vegies. Here lies my problem — GRASSHOPPERS in plague proportions. Please help, what can I do to get rid of them? They eat everything! I tried a nicotine and garlic spray but I think they like it.

Here's a few handy hints. To sweeten beverage flask for yoghurt making: before heating milk half fill flask with hot water, add ½ a teaspoon of pure vanilla essence, put on lid, shake and leave stand while waiting for yoghurt mix. For overworked hands with ingrained dirt, put 1 teaspoon of white sugar and 1 tablespoon of glycerine into the palm of hand, rub hands together vigorously and then wash off.

Good luck to all.

Jackie, Bluey & Danny
RMB 2047
THOUGLA VALLEY 3707.

Dear Growing People,

I have been moved to answer some requests readers have made in Feedback, GR 70. The magazine is a wonderful source of information, and where else can we share our many and varied skills so widely?

Firstly I would like to suggest to Julie Curtin of Esperance that ITCHY DRY SCALP can be largely relieved by the rubbing in of fresh lemon juice, also very helpful for dandruff. Try cold pressed corn oil for dry hair, especially the ends, rub in and leave as long as possible. Refrigerate oil as it tends to become rancid. For dry skin cod liver oil capsules have proved extremely helpful. Good luck.

Secondly may I say that the AGA FUEL STOVE of Mrs R Hupp could well be a coal or solid fuel range. It should have a top and bottom flue, open these for a good initial draft, this will help to eliminate the amount of soot being formed. Is the chimney clean?

Happy year of the snake to everyone.

Frieda Clifton
17 Colton St
WEST END 4101.

Dear Grass Roots,

I would greatly appreciate it if anyone could tell me where to buy CANE for making BASKETS.

Tamara McKimmie
'The Willows'
GLEN GARRY NORTH 3854.

Hi,

To Ray Riley (GR 70, p. 81): to ESTIMATE THE WEIGHT OF CATTLE with a string, this is what you do. Cut a string and make a knot 182 cm (6 ft) from one end. Make the next knot 7.3 cm (2¾ in) from the first, then at intervals of 7.3 cm (2¾ in), 7.3 cm (2¾ in), 6.9 cm (2¾ in), 6.5 cm (2½ in), 6.5 cm (2½ in) and 5.9 cm (2¾ in) from the one before. The 182 cm (6 ft) knot will give a weight of about 175 kg (386 lb); 189.3 cm (6 ft 2¾ in) is 200 kg (441 lb); 196.6 cm (6 ft 5¾ in) means about 225 kg (495 lb); 203.9 cm (6 ft 8 in) is 250 kg (551 lb); 210.8 cm (6 ft 11¾ in) is roughly 275 kg (606 lb); 217.3 cm (7 ft 1¾ in) about 300 kg (661 lb); 223.8 cm (7 ft 4¾ in) about 325 kg (717 lb); and 229.7 cm (7 ft 6¾ in) means about 350 kg (772 lb).

To measure a beast, put one end of the string on the withers, drop the rest of the string behind the shoulders, between the front legs and up over the shoulder blade to the starting point on the withers. Now pinch the ends of string together where they join and count the knots. If the point of junction is between the knots you'll have to guess the distance from the last knot and estimate the weight from there.

To get a more accurate guess as to how much meat you will get, remember that the hide/meat ratio is 4-5 kg (8¾-11 lb) of skin for 100 kg (220 lb) of meat. The smaller the beast, and the poorer, the more hide you will get compared to meat. To work out your fat/meat ratio: a yearling will get you 52-55 kg (115-121 lb) of meat for 4-5 kg (8¾-11 lb) fat; from a half-fat beast you get 55-80 kg (121-176 lb) of meat to 5-8 kg (11-17½ lb) fat; a fat beast will give you 60-65 kg (132-143 lb) of meat and 6-12 kg (13-26 lb) of fat.

I hope you can follow all this. May the peace of Allah be with you.

Mike Bredillet
Bald Hills Station
via HOPEVALE 4871.

Dear Grass Roots Readers,

I notice a lot of readers have been requesting INFORMATION ON COMMUNITIES. Down To Earth has published a *Communities Access Directory* containing names and details of 25 communities. The cost is \$1.20 including postage and it can be obtained from Robin Goodfellow, Box 341, Spring Hill 4004.

I would also like to hear from anyone who has experience in tendering for a mail run or a parcel delivery run with Australia Post. Wishing everyone peace and happiness for 1989.

C Fickling
PO Box 279
GARbutt 4814.

Brothers & Sisters,

A thought has come to mind that although this great mag brings us together, we do not know enough of WHAT IS HAPPENING around us. For example, when the next arts and crafts seminar is happening in your area, the next peace group meeting, the next tree planting field day, save the kangaroos rally and so on. Let's get above the 'I've got 4 chooks, 3 ducks and a sore toe' business and put pen to paper and let us all see how we as a whole are working toward a better future. I couldn't think of a better way to meet grass rooters. When you're writing please don't forget the two month printing gap. Let us know early about coming events.

Francoise
Lot 5 Comboyne Rd
KILLABAKH 2429.

Dear Grass Roots,

I'm so happy to have again found *Grass Roots*, lost the connection for some time but now I'll subscribe — it's a breath of spring to read the interesting skills you people have and enjoy. I too wish to participate but wonder where my skill lies, perhaps I'll begin with alternative living. I've loved the country for years, have lived there also but my work at that time was very different and it's only now I realise just how much I could enjoy being amongst caring unselfish and human people.

I spent Christmas in the bush with beautiful people and I need to move myself out of the rat race. I enjoy reading every page of *Grass Roots*, each is different and I feel for every age. My years are late fifties young, but I can't afford to miss a beat now. How much healthier I will be, what clear mornings and vast starry skies in the evening. I can smell the bush. I love it. Thank you for putting me on the right road and should anyone like to write me I certainly will answer. Perhaps you can tell me about your dream spot — or teach me about solar panels.

Joy Court
PO Box 639
REDCLIFFE 4020.

Feedback Link-Up Feedback

Dear Grass Roots,

Last week I had two of your magazines, No. 61 and No. 65 posted to me from a friend at Binalong Bay, Tasmania. I had no idea until then that they existed. I sat down and didn't move until I had read them both. What fascinating people there are in this world — one wanting to live an alternative lifestyle, another wanting information on making mud bricks, people wanting to shift to another state, or how to grow a lemon tree.

My husband Eric and I live on an ordinary block of land and we are almost self-sufficient. There is hardly an inch of soil that hasn't something in it. I am a great grandma, but very active. We have apricots, apples, pears, prunes, figs, peaches, nectarines, greengages, persimmons, tree tomatoes (tamarillo), oranges, lemons, feijoa, passionfruit, Chinese gooseberry, black, red and white currants all growing happily together with dozens of shrubs, perennials, bulbs and vegetables. I preserve or freeze all fruit without sugar, make my own bread, have half a dozen chooks, and three lovely compost bins. We feed our plants with animal or poultry manure and urine, so spraying for pests is almost nil. We mulch to save water and weeding, use sawdust on paths and use our own seed each year. I love ferns and have many different varieties on the patio. I hardly ever get beaten when I enter them in shows.

All this led me in 1965 to write a book (now into 3rd edition) and include all the cooking and garden secrets. I've made such a lot of friends world wide that it is hard to keep up with correspondence. I am a handcraft fanatic and our home is full of homemades — even the curtains are patchwork to match the bedspread. And I make hundreds of things from old stockings — I won a silver cup last year with my table cover. I have been writing a hint column in our local paper since 1971 and have also written books on gardening, household hints, our travels overseas and my life story. I don't waste time as you can gather, so when I am ready to depart I can say I've lived every day to the full, as, if I'm not in the garden or baking or sewing, I am helping people by phone or letters with their problems. We also have nearly 4000 bottles old and new on show, and dozens of collections of dolls, spoons, thimbles and so forth. People and organisations come from everywhere to look at them and our garden, and the shelves of souvenirs we have collected from around the world. My lifestyle when young was so different to the one children enjoy today. What girl now would wheel a case of apples around to customers on a wheelbarrow or carry a kangaroo or a pair of rabbits around from door to door! We churned our own butter, sold it for a shilling a pound, sold milk, poultry, fruit and eggs, and never had to buy much. Sunday was spent at Sunday School and Church and visiting, enjoying homemade bread and butter and scones or rock cakes. I loved those times and I love Tasmania, so much so that my latest book is about its history. If any of your readers would like any information on anything, I would be glad to help them as best I can, but I must have a stamped addressed envelope because I have to rely on a pension for income. Money from my books goes back into the next one. Thanks for a lovely magazine. I've enjoyed it so much that I just had to write and share our home, garden and contents with your readers.

**Marjorie Bligh
163 Madden Street
DEVONPORT 7310.**

Dear Readers,

As I am only a 'young' reader of this publication (some three years), I now realise the importance of the contents and the communication it offers all people, irrespective of age or interests. The person based in a city, Ralph Reid, North Ryde or Gaston de Comp-ass-ion of Coominya, each with their informative and positive message (GR 70) have assisted keeping up this strong content. Each issue that I have obtained is truly value plus and another piece to build up a strong encyclopaedia of tips and ideas ranging far and wide. I am continually amazed by how many hours of disappointment and frustrations that can be saved, (not to mention the cost that could be involved) by simply putting pen to paper or referring to previous relevant articles. I have no queries or answers to offer at this time but I would just like to thank the publishers and all the people who contribute honest and factual information to this high quality and useful magazine. I do as most readers and that is read everything, then re-read my interesting sections and later slip the copy out again which refers to a particular part of my daily activities. It is unfortunate that some unwelcome mail follows publication of one's address (my unwanted items got quick shift into a bin) so I suggest queries and answers be printed as a general item of interest for all readers to respond with a simple but precise reference as Jan E or Bill B. Good health and happiness to all.

**J P Moreland
TALLEBUDGERA VALLEY 4228.**

Dear Grass Rooters,

We have just acquired 50 acres on the south coast and are planning to raise Cashmere goats — even though the conditions are less than ideal. Here is where we need help — the land is fenced with 7 strand ELECTRIC FENCING inside the boundary fence. We are reluctant to use Roundup to keep the grass down, yet without this, the fence shorts out. We are also worried about the regrowth of blackberries between the two fences. My mind is playing with ideas of mulch of some type, but it seems a little impractical. Does anyone have any ideas to stop the fence shorting out on the regrowth? As the bottom wire (live) is only 5 cm (2 in) from the ground (to prevent the goats getting out) you can see we have quite a problem, and would really appreciate a solution that is kind to the earth. Thank you.

**Hermira Mannesse
PO Box 234
MILTON 2538.**

Dear Grass Roots Readers,

My wife and I are real survivors: born in the 20's — when life wasn't all glamorous like the films, unemployment was endemic and farmers were starved off their farms, — grew up in the 30's in the depression (which lasted up to the early days of WWII), then raised 4 healthy kids on a small wage. We grew our own vegies, kept chooks, bottled our own fruit, made a lot of our own clothes and kids' toys. A lot of the knowledge we have we got from those wonderful old ladies in the CWA who preserved the cottage and rural crafts which have become so fashionable today. Jo and I lived by them and now we are retired I am wood burning and carving, Jo is giving classes at neighbourhood houses on herbs in cooking, cosmetics and Xmas decorations, paying back to the memory of those who went before by passing on such few skills as we have.

I must however take Jeff Hodges to task on his article on INCINERATORS (GR 70). A properly built and used incinerator does not have an offensive effluent and rarely smokes. Anyone who burns rubber and plastics should be dealt with by the law but over the last 40 years the bones burnt in our incinerator with other clean burning matter have sweetened the ground and nourished the soil in the notoriously sour clay of Ringwood.

The only things we throw out are bottles (after sorting for recycling), metals and plastics and our standard size bin goes out once every 3-4 weeks. Our block of land (60 ft x 200 ft) is on the average 1 foot higher than our neighbours' because we compost or burn anything else. We lived off our own fruit and vegies, made our own sprays from cigarette butts (until August last year my wife was a committed atmosphere polluter), soap or garlic. We have been dedicated disciples of Rachel Carson since we read an early edition of *Silent Spring*. Even my workshop waste is used — sawdust makes great kitty litter for a couple of elderlies nearby and unusable off cuts go to their fires; the rest is used for mulch. Thanks for a great magazine.

**Alan Logan
93 Wantirna Road
RINGWOOD 3134.**

Dear Friends,

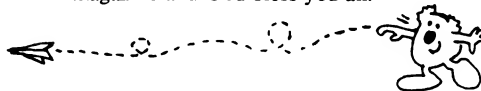
I am writing in the hope that someone can provide me with some information on the habits of TERMITES and also a means of eradicating them from my home. I would prefer a deterrent, however as they have already infested 2 rooms I don't know if this would be possible. I absolutely refuse to use anything toxic on the environment so please don't bother to write if that is the only solution you can think of. I would also love to hear from other singles living a GR lifestyle in the city and seeking a genuine friendship.

**Jenny Hewison
Lot 406 Old Ferry Rd
ILLAWONG 2234.**

Dear Friends,

I need help! I suffer from TEMPORAL ARTERITIS, that is inflammation of the temporal artery, a rheumatoid condition, 1 in 2000 people are affected. I am desperate to contact anyone with this disease. I am on high doses of cortisone with all sorts of horrible side effects, and not much hope from the doctors in beating it. Anyone who knows something to help me and writes to me, I will answer and refund cost of stamps and photo copies of any writings. Thank you for your great magazine and God bless you all.

**Helena Groenevelt
27 Thomas St
Blackstone
IPSWICH 4305.**





gumnut gossip



Megg Miller.

Some months when I sit down to write this there seems little to say and I have to walk around and badger everyone for ideas, but so much has happened these last few weeks that this time I'll have trouble fitting it all in. When I talk or write about the office I'm really meaning the people who work here, the busy beavers who help me make GR possible. You may recall that in the December issue I mentioned we would be losing several of those trusty helpers as a result of relocating the office, and wished them well. But they didn't go! In a small area like this the desired employment isn't instantly forthcoming and it's taken this long for Anna and Julie to find the right jobs. They were starting to feel really dispirited then 'snap', in the same week both landed their ideal job. Yvonne, who was leaving to establish a small business, continued to come in also, to help us through a busy period but she too must leave and will go when the girls do before Easter. All this may sound uneventful on paper but finding employment isn't easy these days, as many readers will know, and we others have gone through the hopes and disappointments with the girls and feel so relieved they will be going to jobs that are challenging and satisfying.

Because we all reside quite a distance from each other we do little socialising out of hours, however back in January several of us went to the annual 'Grow Organic' weekend held in Bairnsdale. It was a delightful and informative three days of talks and workshops by experts in their fields and an event we can recommend attending. We of course had a wonderful time meeting up with folk who have had articles in GR and with some of our readers. It is a camping weekend and those attending are expected to take responsibility for their litter. Our crew shared tents and cooking facilities and so kept a communal plastic garbage bag. When one evening they decided to seek out the high spots of Bairnsdale they set off with nary a thought for this same bag, tied for convenience sake to the front of the 4WD and sitting like a proud figurehead on an old ship. Fortunately they discovered it in town and, equally fortunately it was still intact but we laughed for hours at the incongruousness of it and how embarrassing it would have been had it disgorged its contents along the roadside.

Whilst that was an amusing incident a recent occurrence was much more serious. Driving home from work one night Julie became involved in a motor accident and was lucky enough to escape with nasty bruising, as her car was a write-off. Her main concern after the accident was not for herself but the state of some settings of eggs she had on the seat beside her and a little chicken in a shoebox. The eggs naturally were broken but her chicken survived and it must have been most confusing for her rescuers trying to make sense of Julie's 'chookie' babblings. She is a tough one and was back at work in a few days, although smiles were in short supply until the cuts and bruises had healed.

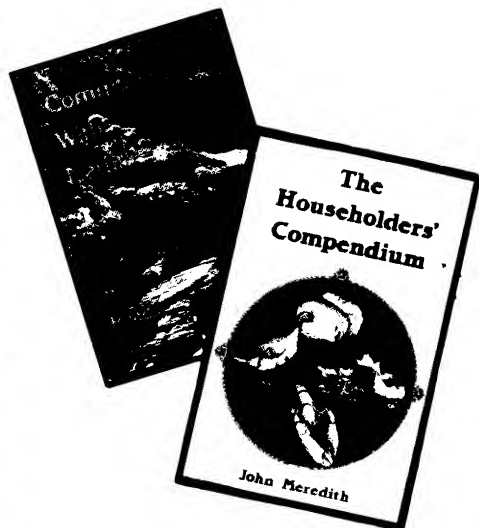
I have to apologise and own up to being dreadfully behind in my mail again but hope that once this issue is off I'll have time to get stuck into it. I'm sure some of you must be grumbling away and wondering why you haven't heard from me – I do regret any inconvenience. I also have apologies to make to former contributors. I've never explained what happened to Basil and Rosemary – Ian Gunn their originator felt he was getting stale, so

has laid them to rest for a while. It must have been quite a feat coming up with something original each issue. Hope you're enjoying the break Ian, we always enjoyed their human antics. I also have an apology to make to Pat Coleby who wrote the 'Natural Goat Care' column for many years. As many readers indicated in the survey last year that they had read sufficient on goats we felt it time for a change, but in the rush to meet deadlines I omitted to explain this, as Pat quite rightly brought to our attention. Pat has always been very generous with her time and knowledge and not surprisingly is an authority in her field. If readers do have enquiries on goats we can after consultation with Pat answer their letters in our 'Livestock Health and Management' page or include a special feature from time to time. Thanks Pat for your support and patience with us, we've always been two steps behind you but I can assure you you've kept us well and truly on our toes.

Our mailbag is always overflowing and there is so much in it I'd like to be able to share with you. Of course you derive a glimpse of it from the Feedback letters but there are lots of gems that don't make it to those pages yet say so much about the real nature of people. They may not touch the core of everyone but they touch my heart and they remind me of how frail and vulnerable we people are in this fast world, how inherently good and caring. The most delightful little note arrived recently from a dear lady who wished to advise us that she had changed her address. She wasn't young but she was very sincere and I'm sure she wouldn't have realised the time we spent checking on our database for her particulars – but there it was in a response to our enquiry. No, she didn't have a sub with us, she always bought it from the newsagents. She just thought it would be nice for us to know she had moved. What a dear person. And I loved the phone call I took one afternoon last week. 'I'm sorry to be a nuisance as I'm sure you're busy, but this is a plea from the heart.' He had advertised in the Contacts not long ago and received some lovely replies, one in particular being special. 'I can't stop thinking about her but I don't have her address. Can I follow it up through you?' Ah, after a day spent desperately running around the office like a chook without its head it was bliss to take a minute and change pace, to feel warmed that romance isn't dead. I hope his heartfelt plea is answered promptly and his dreams blossom into a relationship.

I should be finishing up, but one more, one I know subscribers in particular will love. We mail most of our magazines out in brown paper bags, a practice we started years ago because it was effective and because it suited our earthy approach. The note was just a scribble on the bottom of a resubscription form but it had real class. 'Just love getting my mag in its plain brown wrapper, it nearly kills the neighbours. They're sure it's a bit 'off' and I'm receiving dubious girlie mags.' Oh dear, what could be more wholesome than *Grass Roots*, even its paper has a rather wholegrain quality about it. I'll leave you to smile about the fact that there are probably lots of post office staff and posties as well as neighbours thinking our subscribers are reading spicy literature and leading double lives. I guess they would be disillusioned if they knew that most of our tastes lean towards homemade pies and do it yourself cement posts and that there is little time or energy left at the end of the day for lacy underwear and high living, bless them.

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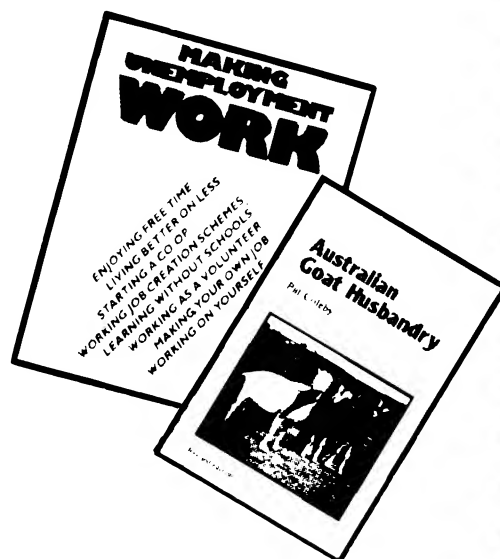
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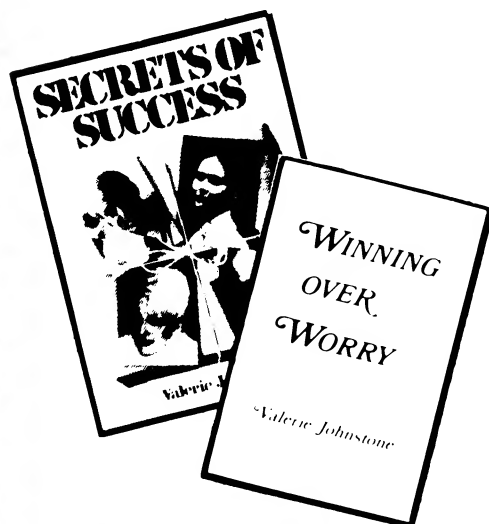


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